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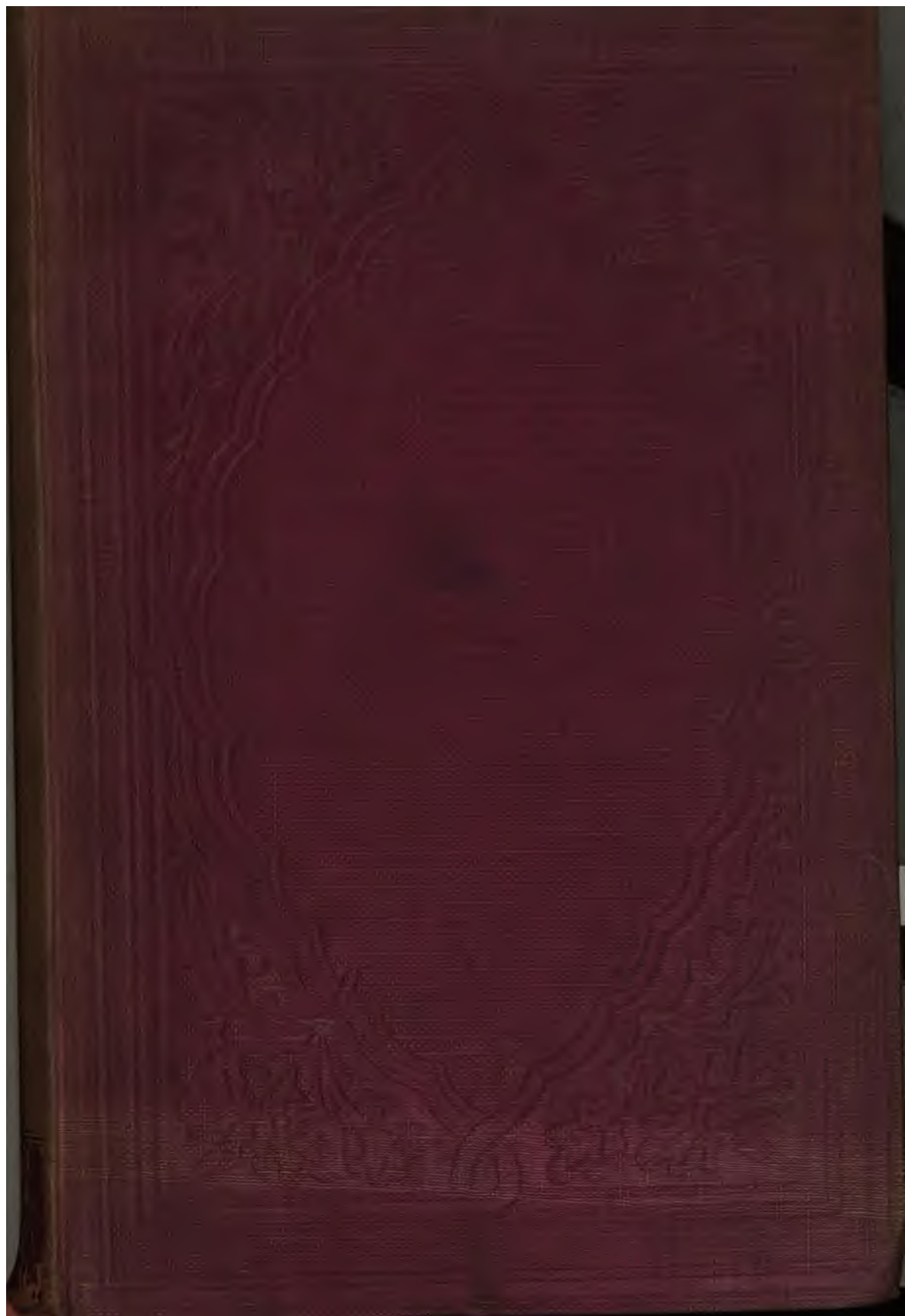
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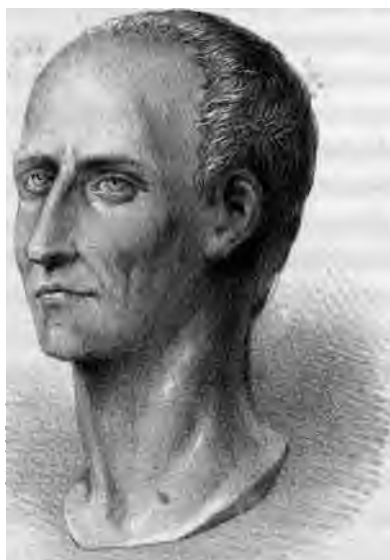


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THE INVASION OF BRITAIN
BY JULIUS CÆSAR

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JULIUS CAESAR.
FROM A BUST IN THE
BRITISH MUSEUM

THE INVASION OF BRITAIN
BY JULIUS CÆSAR

WITH

REPLIES TO THE REMARKS OF THE ASTRONOMER-ROYAL

AND OF

THE LATE CAMDEN PROFESSOR OF ANCIENT HISTORY AT OXFORD

BY

THOMAS LEWIN, ESQ.

OF TRIN. COLL. OXON. M.A.

AUTHOR OF 'THE LIFE OF ST. PAUL' 'JERUSALEM' ETC.

SECOND EDITION

LONDON

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PREFACE.

IN the original Essay and the supplemental Replies and Notes will be found all that the author can say upon the subject. The further investigation to which he has been led has served only to confirm him in the belief that both his propositions were correct, viz. : that Cæsar embarked at Boulogne, and that he landed on Romney Marsh. Indeed, the principal objections urged against his theory have, upon inquiry, become arguments in his favour. Thus it was urged that Ambleteuse is only five and a half miles Roman from Boulogne, and could not therefore be the Portus Superior ; but the French Ordnance map now establishes the fact that the distance of Ambleteuse from Boulogne, by the land route (to which Cæsar no doubt refers), is as nearly as possible eight miles Roman, as Cæsar represents it. Again, it was contended that Cæsar could not have disembarked on Romney Marsh, which in that age was a mere swamp ; but the geological history of the Marsh shows conclusively that the

eastern end of the Marsh where Cæsar arrived was as much *terra firma* in his day as in our own. Not only so, but the very islands to which Velleius Paterculus refers in the anecdote of Scæva have lately come to light, and the last traces of them were removed by the present engineer of the Marsh only a few years since. The author now bids adieu to a controversy which has afforded much pleasure to himself, and has, it is hoped, given no offence (as none was intended) to those who differ from him.

February 25th, 1862.

P R E F A C E

TO

THE FIRST EDITION.



THE following pages were commenced with a view to delivering a Lecture before a Literary Society in Sussex, where the subject would have possessed a local interest; but the discussion was soon found to involve a minuteness of detail which was little suited to a general audience. The author, therefore, rather than confess that his time had been thrown away (an opinion which will still be entertained by many of his readers), determined on submitting the result of his labour (or rather of his amusement) to the judgment of the public.

It is almost investing a trifle with too great importance to thank several friends for their assistance, but the author cannot refrain from acknowledging the

kindness of the Rev. C. Merivale, for the tract noticed in the Appendix; Mr. S. Waley, for the loan of Mariette's Memoir on the Portus Itius, from which much valuable information has been derived; Mr. Barton, of Dover, for inquiries about the Tides; and the author's relative, Mrs. Spencer Lewin, for much time and pains bestowed on the preparation of the Illustrations.

LINCOLN'S INN:
July 13, 1859.

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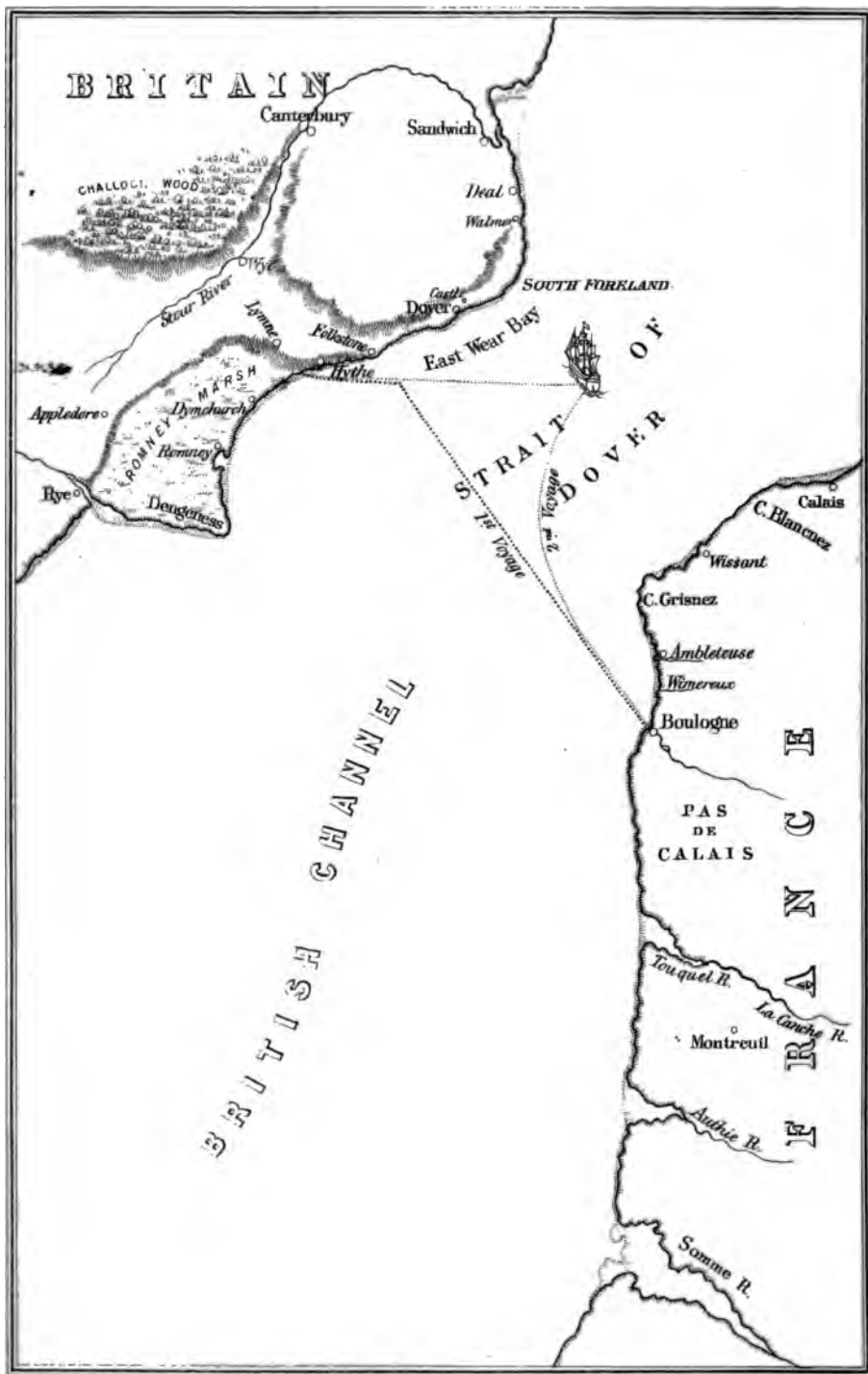
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CORRIGENDA.

- Page 3, note, for "J. Cæsarem" read "C. Cæsarem."
,, 9, line 1, *dele* "of Cæsar."
,, 9, line 11, *dele* "that."
,, 25, last line, for "Cneius" read "Cnæus."
,, 26, note 6, for "quartam" and "tertiam" read "quartum" and "tertium."
,, 29, for "we have already had occasion to mention" read "we are informed."
,, 30, line 17, for "had been" read "were."
,, 30, line 18, for "S. W." read "S."
,, 31, line 21, read "cliffs" instead of "chalk cliffs."
,, 39, line 6, *correct thus*: "if the wind was in his favor in coming from
Boulogne to Dover, it must have blown from some point of the south,
and then if it still continued in that quarter, and Cæsar sailed before
it, he must have steered up Channel to the east."
,, 43, line 23, for "8th" read "16th."
,, 56, line 15, for "quadrangular" read "pentagonal."
,, 127, line 7, between "and" and "that" *insert the word* "Plutarch."



THE
CAMPAIGNS OF JULIUS CÆSAR
IN BRITAIN.

FIRST INVASION.

I PROPOSE to sketch the first page of British history, the invasion of the island by Caius Julius Cæsar, afterwards Roman emperor. We here look across a gulf of nearly two thousand years; but, if I mistake not, the picture to be presented of that period will be graphic and distinct. We have an account from the pen of Cæsar himself, the principal actor in the drama; and his Commentaries, though intended for notes only, are so masterly and so full of lifelike impressions that by bestowing a little care we can follow him from place to place, and from day to day, with the most extraordinary minuteness. The Roman calendar was at that time in such confusion that any references to it would only have tended to mislead, and Cæsar, writing for posterity, has measured his campaigns by winter and summer, by equinoxes and moons. In tracing his progress we shall find some very remarkable instances of the precision with which his steps can be traced by means of casual observations upon the phenomena of nature, and it is this singular characteristic of his

narrative which has tempted our eminent astronomers, Halley and Airy, to devote some portion of their time and labour to the investigation of the subject.

Historians and antiquarians are all agreed that the first footstep of Cæsar upon these shores was planted either in Sussex or in Kent. In which of the two has been warmly contested, and I shall not here by anticipation determine the controversy. I shall lay before you the facts which have left no doubt on my own mind, and will, if the result answer to expectation, bring conviction to yourselves. The palm contended for is no mean one, for the Roman legions were so warmly received, that, even under Cæsar's auspices, they effected their landing with the utmost difficulty.

It was in B. C. 58 that Cæsar took possession, as prætor or governor, of the province of Gaul, then comprising the North of Italy, called Gallia Cisalpina, with part of Illyricum, and the South of France, called Gallia Transalpina, or Provincia Romanorum. In the course of four successive years, Cæsar, by feats of arms and diplomatic address, extended the limits of his province as far as the Rhine eastward, and the barrier of the ocean to the north and west. Towards the close of B. C. 55, he looked around in vain for an enemy in Gaul, and cast his eyes in the direction of Britain. He already anticipated the coming conflict between himself and Pompey; and it was necessary to find some plausible pretext for adding to the number of his legions, and promoting their efficiency by constant employment. Besides, what booty was to be expected from a country whither Roman spoliation had never yet penetrated, and which was said to produce gold and silver and pearls!¹

¹ "Fert Britannia aurum et argentum et alia metalla pretium victoriæ. Gignit et oceanus margaritas."—*Tac. Vit. Agric.* "Multi

what glory was to be reaped from the annexation to the Roman Republic of the largest known island, and that so remote as to be deemed, in popular belief, beyond the limits of the world!¹

A favourable opportunity also now presented itself, for hostilities had lately broken out between Cassivelaun, king of the Catyeuchlani (Middlesex and Hertfordshire), and Imanuent, king of the Trinobantes (the people of Essex), and Imanuent, finding himself worsted in the conflict, had appealed to Cæsar for assistance against his too powerful neighbour.²

The excuse ostensibly alleged by Cæsar for the aggression was the same as that more recently put forward by the Great Napoleon, in justification of a like fruitless attempt, viz. that Britain had subsidised hostile powers in the Continental wars.³

The invasion of Britain being resolved upon, the first thing to be done was to gain information touching the ports of the island, and the resistance to be offered.⁴ The Gauls in general were wholly ignorant upon these matters, and he could learn nothing. He then sum-

prodiderunt (J. Cæsarem) Britanniam petisse spe margaritarum." — *Suet. Cæs.* 46, 47.

¹ "Et penitus toto divisos orbe Britannos." *Virg. Eclog.* i. 67.

² In the following year Mandubert, the son of Imanuent, on escaping to Gaul, is said "fidem Cæsaris secutus" (*B. G.* v. 20); and he had, therefore, pledged himself to Cæsar the year before.

³ "Quod omnibus fere Gallicis bellis hostibus nostris subministrata auxilia intelligebat." — *Cæs. B. G.* iv. 20. "Auxilia ex Britannia, quæ contra eas regiones posita est, (Veneti) accersunt." — *B. G.* iii. 9.

⁴ The difficulties of Cæsar, from his total ignorance when he embarked on the first expedition, were a favourite topic with the orators for practice in speaking. "Hæc et in suasoriis aliquando tractari solent; ut, si Cæsar deliberet, An Britanniam impugnet? Quæ sit Oceani natura? An Britannia insula? Quanta in ea terra? Quo numero militum aggredienda?" — *Quinctil. de Orator.* vii. 4.

moned into his presence the merchants who traded with Britain, and must, therefore, be acquainted with the products of the country and the manners of the inhabitants. But to his surprise, the merchants were equally dull; so that he could not even satisfy himself whether there existed along the coast a single harbour for the reception of a fleet.¹ One cannot help surmising that these merchants could have told a great deal more than was suffered to escape from their lips. The ignorance of the Gauls was probably not affected, for Cæsar makes the remark, as true of the past day as of the present, that no one thought of visiting Britain unless he had some substantial reason for it.²

Cæsar, however, was not to be thus foiled; and, as he could extract nothing from the Gauls, he determined on despatching one of his own officers to survey the island. Caius Volusenus was selected for the purpose. He started on his errand in a long ship³, i. e. one built for the utmost speed, and impelled by oars; in short, a Roman trireme, or war-galley.

Meanwhile, Cæsar, to prepare for the expedition, marched into the country of the Morini. We shall hear something more of these Morini, and we may, therefore, pause at once to ascertain where their country was

¹ The Veneti of Gaul (the people of Vannes) were those who chiefly traded with Britain, and they did every thing to thwart the expedition: "ἔτοιμοι γὰρ ἦσαν (οἱ Οὐένητοι) κωλύειν τὸν εἰς τὴν Βρεττανικὴν πλοῦν χρώμενοι τῷ ἐμπορίῳ." — *Strab.* iv. p. 271. The Morini also, who occupied the coast opposite Britain, were equally friendly to the islanders: "τῶν Μωρίνων φίλων σφίσιιν ὄντων." — *Dion.* xxxix. 51.

² "Neque enim temere præter mercatores illo adit quisquam." — *Cæs. B. G.* iv. 20. In that age also, as in the present, Britain was the asylum of refugees from the Continent: "hujus consilii principes . . . in Britanniam profugisse." — *Cæs. B. G.* ii. 14.

³ "Navi longa." — *B. G.* iv. 21.

situate. Cæsar tells us that he went thither because thence was the *shortest passage into Britain*.¹ It was, therefore, unquestionably the part of Gaul opposite to Dover; and the only debatable point is, what were the exact limits of the Morini, east and west? Ptolemy, the celebrated geographer, in tracing the northern line of the coast of Gaul, from the river Seine eastwards, enumerates the peoples and rivers in the following order:—1. The Atrebates (of Arras); 2. the Bellovaci; 3. the Ambiani (of Amiens, on the Somme); 4. the Morini; 5. the River Tabula (the Scheldt); and 6. the Meuse.² Thus the Morini were eastward of the Ambiani, and as the latter were settled on the Somme, and reached down to the coast, as appears from Pliny³, the Morini certainly did not extend *beyond* the Somme westward.⁴ It is likely that they

¹ "Ipse cum omnibus copiis in Morinos proficiscitur, quod inde erat brevissimus in Britanniam trajectus."—*Cæs. B.G.* iv. 21. How then could Cæsar have sailed, as Professor Airy supposes, from the estuary of the Somme, which is double the distance? But of this more hereafter.

² "Κατέχουσι δὲ τὴν παράλιον, ἐπιλαμβάνοντες συγχρὸν καὶ τῆς μεσογείας, παρὰ μὲν τὸν Σηκοάναν Ἀτρεβᾶτιοι," &c.—*Ptol.* ii. 9. 7.

³ "A Scaldi [Scheldt] incolunt *extera* [on the coast] Toxandri pluribus nominibus. Deinde Menapii, Oromansaci juncti pago [district] qui *Gessoriacus* vocatur, Britanni, *Ambiani*, Bellovaci. *Introrsus* Castologi, *Atrebates*, Nervii liberi," &c.—*N. H.* iv. 31.

⁴ The "Ἰκιον ἄκρον" of Ptolemy is generally taken for Cape Grisnez; and if so, as Gesoriacus Portus was certainly Boulogne, Ptolemy, in this part of the coast, has fallen into an error in placing Cape Grisnez to the *west* of Boulogne. Mariette suggests (p. 49) that "Ἰκιον ἄκρον" is Cape Alpreck, about three miles to the west of Boulogne, of great perpendicular height, and formerly projecting further into the sea; and then Gesoria would correspond to Iques or Iccium (at Pont de Briques), and Gesoriacus Portus to the port of Boulogne. If "Ἰκιον ἄκρον" be Cape Grisnez, and rightly placed by Ptolemy, then Gesoriacus Portus would, in Ptolemy's idea, be Calais;

occupied the coast from the river La Canche west, to the Aa, at Gravelines, east.¹

While Cæsar was amongst the Morini collecting vessels for the intended invasion, an embassy arrived from some of the British states to tender their submission. Cæsar's projects had got wind, and been wafted across the Channel, and the Britons hoped that they might avert hostilities by some complimentary forms; but Cæsar was wide awake, and knew as well as they the value of words, and making large promises proceeded with his armament. He also sent back with the envoys a Gallic partisan of his own: one Comius, king of the Atrebates, of Arras, in Gaul. He was thought to carry some weight in Britain, and was, therefore, ordered to visit the different chieftains of the island, and promote the Roman interests²; but Comius had no sooner landed than the spirited Britons seized him as a spy and put him in chains.³ C. Volusenus, who had been sent across the Channel to reconnoitre the coast, returned after an absence of five days only, and made his report, a somewhat meagre one, as we must necessarily conclude; for, allowing two days for coming and going, he had only three days at command, and, in so short a space, he could scarcely have done more than take the soundings between Dungeness and the South Foreland. Of the country itself he could render no account what-

whereas it was certainly Boulogne. Ptolemy, in short, is full of error, and not to be depended upon in detail, though invaluable as a general guide.

¹ Bertrand's Hist. of Boulogne. Richborough is described by an ancient writer as looking, not toward the Morini, but toward the Menapii and Batavi. "Rutubi Portus, unde, haud procul a Morinis in austro positos, Menapos Batavosque prospectant." — *Æthicus*, cited *Monum. Hist. Brit.* p. xix.

² Cæs. B. G. iv. 21.

³ B. G. iv. 27.

ever, for he had not dared even to set foot upon shore.¹

As we are now approaching the time of the actual invasion, I must endeavour to give a slight sketch of Britain, such as C. Volusenus did not see it, but such as Cæsar himself afterwards found it. The picture of an ancient Briton, as portrayed in the frontispiece of our school histories, is no doubt familiar to every one. An athletic figure *in puris naturalibus*, with the exception of the skin of some wild beast thrown about his loins, a moustache on the upper lip, a smooth chin, long hanging hair behind, a spear in the hand, and the whole body stained after some curious pattern with woad²; in short, a barbarian, such as may still be found in some of the islands of the Pacific. Now Britain at this time was unquestionably occupied by two very different races, and the above portrait may have some foundation for it as regards one of them, but is certainly very far from the truth as regards the other. Originally, all the West of Europe, including France, Great Britain, and Ireland, was inhabited by a people called by the

¹ "Volusenus, perspectis regionibus, quantum ei facultatis dari potuit qui navi egredi ac se barbaris committere non auderet, quinto die ad Cæsarem revertitur, quæque ibi perspexisset renuntiat."—*Cæs. B. G.* 21.

² It must be admitted that, according to Cæsar, the Britons generally stained themselves with vitrum or woad. (*B. G.* v. 14.) Herodian adds that the stains were imitations of animals (*τὰ δὲ σώματα σιζονται γραφαῖς ζώων ποικίλων*.—*Herod. cited Mon. Hist. Brit.* p. lxiv.); and I do not suppose that the whole body was stained, but the face only, in order, as Cæsar remarks, to give them a fiercer aspect in war. In Egypt the women still stain the chin with some device, and, if I mistake not, there are traces of the same custom on the chin of the Sphinx; yet neither the present nor the ancient Egyptians are called barbarians.

Greeks Galatians, by the Romans Gauls, and by themselves Celtæ; all, no doubt, the same word under different forms. We have still large traces of the name in our own island. Thus Scotland is the land of the Gael; the Principality is Wales, Wallia, or Gallia, or in French *Pays de Galles*; and Cornwall, one of the last strongholds of the Celts, is so called as being corner-Wales. I need scarcely mention that Gaelic, Welsh, and Cornish are all essentially the same language. The Celts, then, were the first head-wave of population which, streaming from the East, poured over the broad fields of Gaul. But soon from behind came another mountain-wave, the Germanic race, which soon deluged all the countries up to the Rhine. Here the great breadth of the river for some while presented a check, but at last the pressure from behind forced them across the barrier, and they drove the weaker Celtic family before them. In the North of Europe, the Germans eventually occupied all the parts between the Rhine and the Seine, and were known by the name of Belgæ, not to be confounded with the Belgians of the present day, but described by Cæsar as the most formidable of all the nations west of the Rhine.¹ As they occupied the coast just opposite Britain, and in clear weather could descry the white cliffs of Albion, they would naturally soon transport themselves across the strait. The upshot was that they colonised all the south-eastern portion of Britain, compelling the Celtic inhabitants to fall back into the *cul-de-sac* of Cornwall to the south, the mountains of Wales to the west, and the Caledonian hills to the north.² We can now understand the statement

¹ "Horum omnium fortissimi sunt Belgæ." — *Cæs. B. G.* i. 1.

² The description of the barbarous part of Britain exactly tallies

of Cæsar, that the clans in Britain were many of them called after those in Gaul¹; that they had the same customs²; that Divitiacus, king of the Suessones, a tribe of the Belgæ, was also (as Canute in after times) the acknowledged sovereign of a wide territory in Britain³; that Cingetorix was the name not only of the king of the Treviri, or Belgæ about Treves, on the Moselle⁴, but also of one of the kings of Kent⁵; that the houses in Britain were the counterparts of those in Gaul⁶; that the language of the Belgæ and the Britons was all but identical⁷; and that Comius, the chief of Arras in Gaul, was sent for this reason by Cæsar into Britain to plead the Roman cause in their own tongue.

We must distinguish, then, between the Belgæ and

with that by Xiphilinus of the Britons to the north of the Roman wall. (*Xiphilin.* lxxvi. 12; *Mon. Hist. Brit.* lx.)

¹ "Qui omnes fere [the South-Britons] iis nominibus civitatum appellantur quibus orti civitatibus eo pervenerunt."—*Cæs. B. G.* v. 12.

² "Neque multum a Gallica differunt consuetudine."—*Cæs. B. G.* v. 14. And so Strabo, iv. 5: "τὰ δ' ἤθη ὁμοία Κελτοῖς."

³ "Divitiacum totius Galliæ potentissimum, qui quum magnæ partis harum regionum tum etiam Britanniæ imperium obtinuerit."—*Cæs. B. G.* ii. 4.

⁴ *Cæs. B. G.* v. 3.

⁵ *Cæs. B. G.* v. 22.

⁶ "Ædificia fere Gallicis consimilia."—*Ib.* v. 12. Chiefly of wood and thatched: "καὶ τὰς οἰκῆσεις εὐτελεῖς ἔχουσιν ἐκ τῶν καλάμων ἢ ξύλων κατὰ τὸ πλεῖστον συγκειμένας."—*Diod. Sic.* v. 21.

⁷ This appears from Tacitus, *Agric.* c. 11: "Sermo haud multum diversus:" and this was a dialect of the German; for Tacitus, speaking of the Æstui, a German tribe, says, "Lingua Britannicæ propior" (*Mor. Germ.* 45). The Æstui are placed "dextro Suevici maris littore" (*Ib.* 45); and amongst the Suevic nations are the Angli, who worshipped "Hertham [Earth], id est, Terram matrem" (*Ib.* 40). Thus Hengist and Horsa, and the Saxons, merely followed the road which their ancestors had taken centuries before. Indeed the influx of the Germans into Britain was only suspended by Cæsar's invasion.

the Celtæ of Britain, the Southern and Northern. The latter were, perhaps, but little elevated above the state of barbarians. Cæsar describes them as clad in skins, and supporting themselves from their cattle rather than from tillage.¹ But the Belgæ, with whom the Roman legions were engaged, though also called barbarians (by which name all were designated who were not Greeks or Romans), had attained to a very considerable degree of civilisation. In the first place, there was a crowded population, which is never found in a state of barbarism.² Even in literary attainments the Britons were in advance of the Gauls, for the priests are universally the depositaries of learning, and the Gauls were in the habit of sending their youth to Britain to perfect themselves in the knowledge of Druidism.³ Then there was great commercial intercourse carried on between Britain and Gaul⁴, not to

¹ Ib. v. 14. The remains of one of these Celtic chieftains may be seen in the museum at Scarborough. On opening a tumulus in the neighbourhood, a coffin excavated from the solid trunk of an oak was discovered, and in it a skeleton more than six feet in stature, which had been wrapped in the hairy skin of some animal; and at the side were arrow-heads of flint. A more genuine relic of the earliest inhabitants of our island, and when still in a savage state, is nowhere to be found.

² "Hominum est infinita multitudo."—*Cæs. B. G.* v. 12. "Εἶναι δὲ καὶ πολυάνθρωπον τὴν νῆσον."—*Diod. Sic.* v. 21.

³ "Qui diligentius eam rem cognoscere volunt, plerumque illo (in Britanniam) discendi causa proficiscuntur."—*B. G.* vi. 13. It is remarkable that the Druids, though they taught their religion orally, yet in ordinary matters used the Greek letters. "Quum in reliquis fere rebus, publicis privatisque rationibus, Græcis utantur litteris."—*B. G.* vi. 14.

⁴ *B. G.* iv. 20, v. 13. The principal Continental rivers frequented by British merchants were the Rhine, the Seine, the Loire, and Garonne (*Strab.* lib. iv. 5). Strabo enumerates amongst the exports of Britain, corn, cattle, gold, silver, iron, hides, slaves, and dogs; and

mention that a partial trade existed between Britain and more distant nations, as the Phœnicians.¹ It was only about a century after this that London, by its present name, was a city crowded with merchants and of world-wide celebrity.² The country also to the south had been cleared of its forests, and was under the plough.³ The country, moreover, must have been intersected by good roads⁴, for the chief strength of the British army consisted of their war-chariots, the very construction of which requires no contemptible progress in mechanical skill.⁵ When Cassivelaunus had been defeated, and had dispersed the main body of his troops, he still retained about him the enormous number of no less than four thousand war-chariots.⁶ But I do not know a greater confirmation of British advancement than the circumstance mentioned by Cæsar,

amongst the imports, ivory, bracelets, necklaces, amber, vessels of glass, and small wares (*Strabo*, iv. 5); and he says that the customs levied on the exports and imports between Gaul and Britain were more valuable than any tribute that could have been extorted from Britain if conquered (*Strabo*, ii. 5, iv. 5). This argues a very advanced state of commerce, and therefore of civilisation.

¹ *Strabo*, lib. iii. 5.

² "Londinium cognomento quidem colonie non insigne, sed copia negotiatorum et comœtuum maxime celebre."—*Tac. Ann.* xiv. 33.

³ *Cæs. B. G.* v. 14.

⁴ *Cæsar (B. G. v. 19)* speaks of "omnibus viis notis semitisque."

⁵ Every reader of the Bible must recollect the frequent allusion to the use of chariots in the wars of the Jews; and every classic must recur to the chariots of the Greeks and Trojans on the banks of the Simois and Scamander. The Britons in the time of Cæsar were probably not far behind the Jews in the times of their judges and kings, or the Greeks in the days of Homer. "Ἀρμασι μὲν γὰρ κατὰ τοὺς πολέμους χρῶνται, καθάπερ οἱ παλαιοὶ τῶν Ἑλλήνων ἦρωες ἐν τῷ Τρωικῇ πολέμῳ κειρήσθαι παραδίδονται."—*Diod. Sic.* v. 21.

⁶ *Cæs. B. G.* v. 19.

that, when he made war upon the Veneti to the west of Gaul, the Britons sent a fleet of ships to their assistance.¹ This could not have taken place unless the Britons had possessed an organised constitution, and formed continental alliances, and maintained a trained and permanent navy. There is one instance of their successful pursuit of the useful arts which I may not omit, as it does honour more particularly to my own county. The iron which was used by the Britons was manufactured by themselves in the maritime parts, i. e. amongst the Regni, or people of Sussex.² It is familiar to all, that a great part of that county is still strewn up and down with the cinders of furnaces worked from the earliest ages until the commencement of the present century, when, as there was no coal in the district, and the wood was exhausted, they were abandoned for want of fuel.

We now descend to details, and our first inquiry will be from what port the expedition of Cæsar started. From the Rhine to the Seine there is scarcely a harbour or roadstead which has not at some time or other had its zealous advocates.³ Some writers have

¹ B. G. iii. 9.

² "Nascitur ibi plumbum album [tin] in mediterraneis regionibus; in *maritimis ferrum*, sed ejus exigua est copia: *ære* utuntur *importato*." — *Ib.* v. 12.

³ Mariette (in his *Lettre à M. Bouillet sur l'Article de Boulogne*, Paris, 1847) enumerates the different publications in favour of the various theories, and classes them as follows:—

In favour of Boulogne, 11;	
Wissant,	5;
Calais,	5;
Etaples,	2 (13 miles S. of Boulogne on La Canche);
Mardick,	1 (3 miles S.W. of Dunkirk);
Authie,	1 (8 miles E. of the Somme, and 7 from La Canche).

thrown out a bold conjecture at random, and then endeavoured to bend the facts in accordance with their hypothesis. Others have taken only a partial view, and shut their eyes to circumstances which militated against their favourite position. Others have laboured under a misapprehension, from failing to catch the true sense of Cæsar's Commentaries. I will mention some of the most plausible theories, and dispose of them in a few words.

According to some, then, either *Dunkirk* or *Gravelines* was the place of embarkation. One objection lies against both of them, viz. that the passage to Britain, where Cæsar crossed, is said to have been only thirty miles¹; whereas Dunkirk and Gravelines are both of them much more. Besides, we are told that to the east of Cæsar's port of embarkation was another haven, eight miles off², and there is no such haven eight miles to the east of Dunkirk, though Dunkirk itself is only three leagues, or nine miles, from Gravelines.

The theory of *Calais* appears, at first sight, more plausible³, but we must not judge of Calais as it was by Calais as it is. It was never used, so far as we know, by the Romans, and accordingly no Roman remains have been discovered there. It was not even a walled town, until just before the capture of it by the English, in the reign of Edward the Third. The coun-

Thus the great preponderance of opinion is in favour of Boulogne. We have now to add the novel theory of the Astronomer Royal in favour of the estuary of the Somme.

¹ B. G. v. 2.

² B. G. iv. 22.

³ It has been suggested that Calais takes its name from *Calicius*, thought to have some affinity to Portus Icius, but the proper name of Calais in Latin is not Calicius, but Caletum or Casletum. (See *Mariette*, p. 22.)

try about it, too, is flat and marshy, and consequently unhealthy for an encampment, and the inhabitants suffer severely from want of salubrious water. The port, also, could never have been larger than at present, and could not, therefore, have contained 560, or if we reckon tenders 800, vessels, on the occasion of the second expedition. When I was at Calais in 1857, I walked round the whole port, including the wooden pier, and I could find room only at the utmost for 300 merchantmen. But Calais could not have been the place of embarkation for other reasons. It was not thirty miles from Britain, and had no haven to the east of it at the distance of eight miles. Gravelines, which is the nearest, is fifteen miles off.

Wissant, between Cape Grisnez and Cape Blancnez, was fixed upon as Cæsar's port, by the learned D'Anville¹; but, great as is the authority of that eminent geographer, his proposition is (under favour) wholly untenable. *Wissant* is no port at all, but only a sandy beach, four miles long, and the radius of curvature five and a half miles.² The chief arguments on which D'Anville relied were these: *first*, that the name of *Wissant* (the corruption of the Dutch Wit-sand

¹ Mémoire sur le Port Icius, imprimé dans le tome xxviii. p. 397, des Mémoires de l'Académie des Inscriptions et Belles Lettres.

² Archæolog. vol. xxxiv. p. 231. Mariette, a native or inhabitant of Boulogne, thus describes *Wissant*: — "Les caps Blancz et Grinez à peine distant l'un de l'autre de six à sept kilomètres, sont joint par une ligne de côtes, dont la courbe régulière et rentrante forme une petite baie tranquille, au fond de laquelle on trouve un village. *Wissant* n'est plus une ville; c'est tout au plus un village; c'est plutôt un hameau égaré dans un désert de sable." — p. 29. *Wissant* flourished as a port from A. D. 556 to A. D. 938. (Ib. p. 30.) There are the remains of a camp there, called Cæsar's Camp, but capable at the most of containing 500 men only. (Ib. p. 35, 38.) "Wis-

or White-sand) has some resemblance to Portus Itius¹, from which Cæsar sailed; and, *secondly*, that Cæsar, before embarking, marched down to the Morini, whence was the shortest passage into Britain², and that from Wissant to Dover is the directest line. But there is little similarity, even in sound, between Itius and Wissant or White-sand; and as for the argument that Cæsar took the *shortest* passage from Portus Itius, he tells us, as I conceive, the very reverse, for he selected Portus Itius, he says, because it was the *most convenient*, thereby implying that it was not the nearest port. He adds, also, that Portus Itius was thirty Roman miles from Britain³, whereas Wissant is not much above twenty Roman miles.

The only other theory which I shall examine is that which has been recently broached by the distinguished astronomer to whom I have already alluded, Professor Airy, who maintains that Cæsar set sail from the estuary of the *Somme*, and landed at Pevensey. Now I confess

sant n'eut guère de port véritable avant le milieu du x^e siècle, et jusque-là il avait dû se suffire avec le port naturel formé par l'embouchure du petit (ruisseau) *Rien de Sombre*, port moins utile que ceux de Sangatte et d'Ambleteuse qui étaient déjà florissants." — *Ib.* p. 32. "The bay of Wissant is a solitary expanse, a curve of some seven or eight miles."—*H. L. L.: Gent. Mag.* vol. xxvi. (1846) p. 254.

¹ There are various readings of the name. It sometimes appears as Itius, sometimes as Icius, and sometimes as Iccius. It is generally thought to be the same word as that applied by Ptolemy to Cape Grisnez, "Ἰκιον ἄκρον, and, if so, the true reading would be Portus *Icius*. On the other hand, Strabo speaks of τὸ Ἰριον (ed. Tauchnitz, iv. 5), which implies that the reading in his time was Itius; as this is the more received form, it is adopted in the text. As to the various readings, see Somner's *Portus Iccius*, p. viii.

² B. G. iv. 21.

³ B. G. v. 2.

myself under no little obligation to the Astronomer Royal for much additional light which he has thrown upon the subject, but from the hypothesis that Cæsar sailed from the estuary of the Somme I must dissent *toto cælo*. It is at variance, as appears to me, with the whole of Cæsar's narrative; and, while it commands attention from the high reputation of its advocate, can never make many converts. The error lies, if I may say so, in an unlucky interpretation of some passages in the Commentaries, and I refer more particularly to the three following. The *first* is this: Cæsar, having resolved on the invasion, "goes with all his forces to the Morini, because thence was the shortest transit,"¹ from which it may be concluded that the port from which he sailed was at least in the country of the Morini; but as the Somme would not, according to the common notion, be within their borders, the Professor renders the Latin *proficiscitur* not "goes" but "sets out for," and supposes that Cæsar never actually reached the Morini. But a few lines farther, we find these words, "while Cæsar tarries *in these places in order to get the vessels ready,*" &c.²; so that, evidently, Cæsar had not only set out for, but also arrived in, the country of the Morini. *Secondly*, on the occasion of the second expedition, Cæsar, speaking of himself in the third person, proceeds: "And he commands all to rendezvous at the Portus Itius, from which port he had found the passage into Britain the *most convenient*, being about thirty miles from the Continent."³ It is plain from this language that the

¹ B. G. iv. 21.

² "Dum in his locis Cæsar navium parandarum causa moratur."—*B. G. iv. 22.*

³ "Atque omnes ad Portum Itium convenire jubet, quo ex portu

traverse from Portus Itius was thirty miles, and, if so, it could not be that from the Somme to Pevensey, which is fifty-two nautical, or sixty statute, miles, not to mention that the estuary of a river cannot in strictness be called a port at all. How, then, does the Professor deal with this difficulty? Why thus: he says that the thirty miles do not apply to the traverse from Portus Itius, but to the distance of Britain from the Continent generally. Now had Cæsar ever made such an assertion, he would have laboured under an evident mistake, as the distance from Britain to the Continent, i. e. from Dover to Cape Grisnez or Cape Blancnez, is only about twenty Roman miles; but Cæsar does not so state. The words "circiter millium passuum xxx," or about thirty Roman miles, belong, from their collocation and grammatical construction, to the traverse from Portus Itius (transjectum), and are not an observation (which would be very *mal à propos*) as to the distance of Britain from Gaul generally. In the latter case the writer would have said, not "circiter millium passuum xxx," but "circiter millia passuum xxx."¹ *Thirdly*, on the return from Britain to Gaul, two of the transports (being, I suppose, more heavily laden than the rest, and bad sailers) missed the

commodissimum in Britanniam transjectum esse cognoverat, circiter millium passuum xxx a continenti."—*B. G.* v. 2.

¹ Cæsar is more accurate than subsequent writers; for Diodorus Siculus makes the distance of Gaul from Britain twelve and a half miles only (*lib. v. c. 21*); Strabo, on the contrary, estimates the distance from Portus Itius of the Morini to Britain 320 stades, or forty miles (*Strab. iv. c. 5.*); and Pliny reckons the distance from Boulogne to Britain as much as fifty miles (*Plin. N. H. lib. iv. s. 30*); and Dion also states the distance of Gaul from Britain to be fifty miles (*Dion, xxxix. 50*).

Portus Itius for which they were bound, and, "*paullo infra delatæ sunt*," were borne away a little to the south¹, and the troops on landing were surrounded by the Morini, who attempted to cut them off. It is plain, therefore, that the coast to the south of Portus Itius was still in the country of the Morini, whereas the coast to the south of the estuary of the Somme would not be so, as the settlements of the Morini extended westward as far only as La Canche. What is the Astronomer Royal's answer to this objection? He is driven to the necessity of saying that "*paullo infra delatæ sunt*" means only that the ships were "carried down the wind!" Such an interpretation is, I venture to say, wholly inadmissible. Cæsar invariably uses the words "inferior" (v. 13), "superior" (iv. 28), "ulterior" (iv. 23), with reference to the points of the compass; and, considering himself as located at Rome, regards any departure from it towards the north as an ascent. There are other grave reasons against Airy's theory, but I pass them over for the present, as the force of them will be better appreciated hereafter, as we trace the progress of the invasion.

I have canvassed the opinions of the Astronomer Royal with the utmost freedom, and the only reparation I can make is to give him his revenge by bringing forward my own hypothesis. The port then from which Cæsar sailed was Boulogne.² All the arguments which have been urged against the other theories are so many

¹ B. G. iv. 36.

² Strabo says that Cæsar made the Seine his dockyard, "*ἐνταῦθα δὲ καὶ τὸ ναπηγιον συνεστήσατο Καῖσαρ ὁ θεός, πλέων εἰς τὴν Βρετανικὴν*" (lib. iv. 5), but Itium his sailing port, which he places amongst the Morini, "*Μορινῶν παρ' οἷς ἐστὶ καὶ τὸ Ἴτιον ᾧ ἐχρήσατο ναυσταθμῷ Καῖσαρ ὁ θεός διαίρων εἰς νῆσον*" (lib. iv. 5).

confirmations of this. For instance, we have seen that Cæsar, in order to prepare for the expedition by collecting transports, marched into the country of the Morini, and Boulogne was not only a port, but was the port of the Morini¹; and, when Florus tells us that Cæsar sailed from *the port of the Morini*, he can only mean Boulogne, which was universally stamped with that character.² Calais, no doubt, was also on the coast of the Morini, but was comparatively unknown and insignificant, as is evident from the Roman military roads all converging, not to Calais, but to Gesoriacum or Boulogne.³ It was at the latter port that Claudius embarked for the invasion of Britain⁴, and here also it is generally understood that Caligula had intended to embark for a similar object, and did actually construct a pharos for the benefit of voyagers to and fro between Boulogne and Britain.⁵ Hence Lupicinus sailed by

¹ "Ultimos Gallicarum gentium Morinos, nec portu quem Gesoriacum vocant quicquam notius habet."—*Pomp. Mela*, iii. 2; "Μορινῶν Γησσοριακῶν ἐπίγειον."—*Ptolem.* ii. 9. 3. "Hæc [Britain] abest a *Gessoriaco* Morinorum gentis litore proximo trajectu quinquaginta m."—*Plin. N. H.* iv. 30.

² "Quum tertia vigilia *Morino* solvisset e *Portu* minus quam medio die insulam ingressus est."—*Flor.* iii. 10.

³ The line of road is given in *Antonin. Itin.*, viz. from Bagacum (Bavay) to Castellum (Cassel), and thence to Taruenna (Térouenne), and thence to Gesoriacum or Bononia (now Boulogne). It is stated by Mariette, that, from coins found upon the road, it appears to have been made by Agrippa in b. c. 27; and, if so, Boulogne must have been the usual port of that coast at least very soon after Cæsar's time. See *Mariette*, p. 47.

⁴ "A Massilia Gesoriacum usque pedestri itinere confecto inde transmisit."—*Suet. Claud.* 17. That Claudius also took large supplies with him, see *Dion*, ix. 21.

⁵ *Suet. Calig.* 46. It is certain that until about 100 years ago

command of the Emperor Julian¹, and Theodosius by command of Valentinian²; hence also Constantius Chlorus³; and hence, in A. D. 893, the Danes crossed to the mouth of the Lymen.⁴ But further, I have already called attention to the distinguishing mark of the Portus Itius, that it was thirty Roman miles, or twenty-seven and a half English miles, from the shores of Britain, and that is just the distance of Boulogne from Folkestone. Certainly the advertisements of the South-Eastern Railway Company state Boulogne to be only twenty-six miles from Folkstone, but measurement is one thing and railway advertisement another. I asked one of the Company's own officials at Folkestone whether twenty-six miles was the actual distance, and he candidly confessed that it was considerably more. But there is another remarkable feature which identifies Boulogne as the Portus Itius. When Cæsar sailed on his first expedition eighteen transports were detained by contrary winds at a haven eight miles⁵ higher up, or more to the north.⁶ When I turned my attention to this subject I was soon satisfied, on numerous independent grounds, that Boulogne must be the port from which Cæsar sailed, but I was not then aware how far it would answer to the requisite

there stood at Boulogne a Roman pharos which would exactly answer to that of Caligula. See a description of it in Dr. Bertrand's *History of Boulogne*. It will be seen depicted in the old map inserted in this work.

¹ Ammian. Marc. cited Mon. Hist. Brit. p. lxxiii.

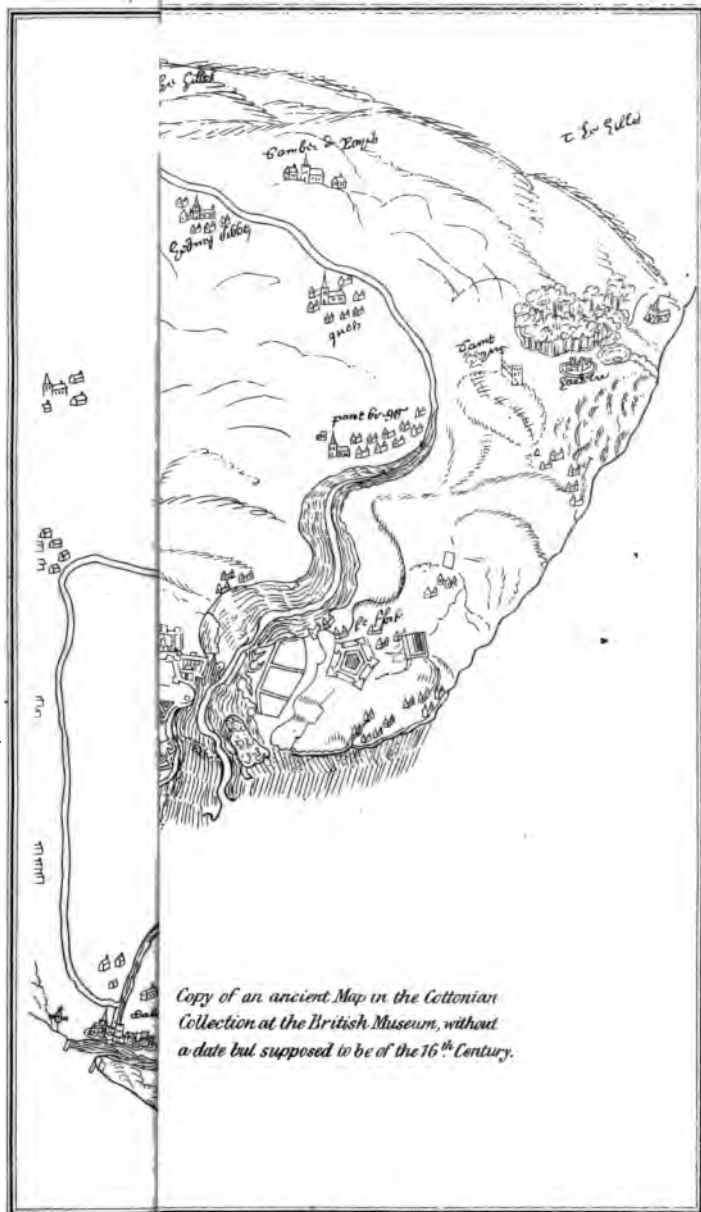
² Ibid.

³ Eumenius in Paneg. in Constant. Cæs. c. 14.

⁴ Anglo-Saxon Chron. A. D. 893.

⁵ "xviii onerariæ naves, quæ ex eo loco millibus passuum VIII vento tenebantur, quo minus in eundem portum pervenire possent."—*B. G.* iv. 22.

⁶ "Ulteriorem portum."—iv. 22.



Copy of an ancient Map in the Cottonian Collection at the British Museum, without a date but supposed to be of the 76th Century.

of having another port eight miles to the north. I was walking one morning, on my return from the Continent, along the long wooden pier of Calais, when I fell into conversation with two French curés, and I broached the subject of Cæsar's invasion. I found them the most unprejudiced witnesses, for they had no acquaintance with the classics, and took no interest in the matter! I asked them if there were any haven some eight miles from Calais, and they told me that Gravelines was the nearest, which I understood to be about fifteen miles. I then repeated the same inquiry with reference to Boulogne, when they told me that Ambleteuse, though now only used for small craft, had formerly been a port of much greater consequence, as was attested by the remains of ancient works there. On returning to the hotel I questioned the landlord about the distance of Ambleteuse from Boulogne, and he said two leagues and a half, which would make eight Roman miles.¹ From subsequent investigation I find that Louis XIV. had proposed to make Ambleteuse a port of first-rate excellence, and that Napoleon afterwards entertained a similar project, but that both undertakings were eventually abandoned.² It is almost

¹ "Ambleteuse est à 8000 pas [8 miles] environ de Boulogne, et la rade d'Ambleteuse est encore à 8000 pas."—*Mariette*, p. 63. The same writer thus speaks of the port: "La Canche à Quantavicus, la Liane à Gesoriacum, la Slacq à Ambleteuse, formaient déjà des ports plus grands" (*Ib.* 33); and a writer in the *Gent. Mag.* speaks of it as follows: "The embouchure of a little channel for draining the valley forms at present the little harbour of Ambleteuse."—*H. L. L.*: *Gent. Mag.* vol. xxvi. (1846) p. 252.

² In the sixth century, Ambleteuse was noted for its trade and fortifications. In 1209 (when it was rebuilt after its destruction by the northern barbarians) excavations were made to form a port. In 1544, Henry the Eighth used it as a general depot for

unnecessary to mention that James II., on abdicating the English throne, landed at Ambleteuse.

It may be thought a slight circumstance, but is not to be passed unnoticed, that Cæsar more than once speaks of *Ports* in the plural number¹, and this is exactly the case if we assume Cæsar's rendezvous to have been at Boulogne; for then, not only was there the little port of Ambleteuse eight miles off, but also a still smaller one at Wimereux², lying between Ambleteuse and Boulogne. Thus while the body of the fleet was assembled at Boulogne, some supernumeraries, particularly the smaller craft, would be lying at the two subordinate havens.

Another argument in favour of Boulogne, which has considerable weight, arises from the name itself of Portus Itius. It is true that the identical word nowhere else occurs in history; but Ptolemy, the famous geographer, in describing this part of the coast, calls Cape Grisnez, Cape Icius.³ Even if the true

warlike stores, when it became one of the safest and finest ports in the channel. A few years after it was taken by the French, and the fortifications rased. In 1680 Louis XIV. determined on restoring the port, and intrusted the work to the celebrated Vauban, when the sluice of the Slacq was made, and a basin dug and a pier added, but the full plan was never completed. In 1803 the right wing of Napoleon's grand army was stationed here, and the port and basin were cleared out. At present the village has a ruinous aspect, wearing only the tattered remnant of pristine splendour."—*Bertrand's Hist. of Boulogne.*

¹ B. G. iv. 36. v. 8.

² "At a short distance from Boulogne, on the coast, is the Port of Wimereux, formed by the mouth of the river bearing the same name. Half a league up the river is the village of Wimille."—*Bertrand's History of Boulogne.* The relative positions of Boulogne, Ambleteuse, and Wimereux will be seen upon the old map.

³ "Μετὰ τὰς τοῦ Σηκοάνα ποταμον [Seine] ἐκβολὰς Φρουδίου ποταμοῦ ἐκβολαὶ Ἴκιον ἄκρον."—ii. 9, 1.

reading of the port in Cæsar be Itius, the two names are very near to each other, and I believe all writers are agreed that they must be taken to be the same word. If this be so, how strong is the presumption that Boulogne must be the Portus Icius, for, with the exception of the comparatively small havens of Ambleteuse and Wimereux, it is the nearest port to Cape Icius. Assuming Cape Grisnez to be Cape Icius, it can hardly be supposed that the estuary of the Somme, as Airy suggests, can be the Portus Icius, when Boulogne, which is, and always has been, a port of much greater celebrity, intervenes between the Somme and the Cape. The very name also of Itius, Icius, or Iccius, may still be traced in the vicinity of Boulogne. A little above the town is the village of Isques, at Pont de Briques.¹ This bridge is of great antiquity, and till recently was the only one connecting the two banks of the Liane, and stood² in ancient times

¹ “ Un petit village, assis agréablement sur la rive gauche de la Liane, à quelques pas de Boulogne et de l'embouchure de cette rivière, annonce même des prétensions à porter encore le nom de l'Icius de César : c'est le village d'Isques, nom moderne qui paraît être un dérive assez naturel du substantif latin. Interrogez les habitans de ce village, et ils vous diront que la tradition du passage de César est encore vivante parmi eux, que la mer montait autrefois jusque à Isques, comme elle y monterait encore maintenant sous les moulins à eau du Pont de Briques et le Pont de l'Ecluse de Boulogne, et que le lit de la Liane, bien plus large et plus profond qu'aujourd'hui formait un port d'un abord facile, et d'autant plus sûr qu'il était protégé du vent par des côteaux voisins.”—*Mariette*, p. 24. This writer, who as a Boulognese seems a little jealous of Isques, yet admits that the name may have been derived from Portus Icius. The town was at all events known in the 9th century; for he adds in a note, “ Isques, sous le nom d'Iska, existait avant les invasions des Normands au ix^e siècle.”—*Harbaville, Mémoires Hist. et Archéol.* t. ii. p. 80.

² It is so placed in the old map; and in Bertrand's *Hist.*

at the head of the estuary. Thus Isques would naturally give its name to the port below. Napoleon, when at Boulogne superintending the preparations for the invasion of England, is said to have fixed his head-quarters at Pont de Briques¹, and as great commanders would be acted upon by similar influences, what more probable than that Cæsar also should have pitched the prætorian tent at Isques, and then have spoken of the port below as Portus Icius ?

I cannot help adding that the very circumstance of Napoleon's selection of Boulogne for his port of embarkation is a strong argument for referring Cæsar's expedition to the same spot. Both generals had the same object in view, and were at the head of powerful armies, and had collected a numerous flotilla. If Cæsar had 800 vessels², Napoleon had 1300 at Boulogne alone.³ If Cæsar made use of a port eight miles to the north of Portus Itius, and another yet nearer⁴, Napoleon quartered one division of his army, with a squadron of vessels, at Ambleteuse, and another at Wimereux.⁵ If Cæsar's ships were all flat-bottomed, in order that they might float in shallow water, and be more expeditiously freighted⁶, Napoleon adopted the very same principle for the very same reason, so that his vast fleet, even exceeding that of Cæsar, was accommodated in the harbour and river of Boulogne, and yet was so conveniently stowed, that,

of Boulogne, it is said anciently to have stood at the head of the estuary.

¹ Bertrand's Hist. of Boulogne.

² B. G. v. 8.

³ Bertrand's Hist. of Boulogne.

⁴ B. G. iv. 22.

⁵ See Bertrand's Hist. of Boulogne.

⁶ "Ad celeritatem onerandi subductionesque." — B. G. v. 1.

on a rehearsal of the embarkation, by way of experiment, the whole army was put on board in the course of one hour and a half.¹ Had we the details of Cæsar's armament, as of Napoleon's, the resemblance might, no doubt, be traced further, but this will suffice for our purpose.

The Astronomer Royal observes, as an objection to Boulogne, that 5000 men could not have been shipped from it at a single tide; but, if the whole of Napoleon's army could be put on board in an hour and a half, it was surely not beyond the reach of Cæsar's genius to clear one half of that number from the port during the interval between one low water and another. I do not know that there would have been any difficulty about it²; however, it is unnecessary to pursue the subject further, as Cæsar nowhere says that he did ship off his whole fleet in a single tide. No doubt they all started at once from their anchorage at the mouth of the port, but they might have quitted the port itself before anchoring outside, in as many tides as their number required.

Time and place are said to be the two eyes of history; and, now that we have fixed the *place* of embarkation, we proceed to determine the *time*; and, if I am not mistaken, you will be surprised to find with what accuracy this point can be settled.

The expedition was in the consulship of Cneius

¹ See Bertrand's Hist. of Boulogne.

² In the *Anglo-Saxon Chronicle*, A.D. 893, is the following passage: — "In this year the great army about which we formerly spoke came again from the Eastern kingdom westward to Boulogne, and there was shipped; so that they came over in one passage (*æne rið*), horses and all, and they came to land at Limene mouth with 250 ships."

Pompey and M. Crassus¹, and was, therefore, certainly in B. C. 55. The season of the year is expressly mentioned to have been when little of summer remained², and we are, therefore, at once prepared to place it somewhere about August. But we can advance a step further; for repeated allusions, on Cæsar's arrival in Britain, are made to the harvest as still continuing³, but drawing towards its conclusion⁴; and we all know that in Kent and Sussex the harvest month is August. But again, Cæsar returned from Britain a little before the equinox⁵, which the ancients reckoned to be 24th September, and his stay in Britain was, as we shall see hereafter, little more than three weeks, and this confirms the deduction from other data, that the voyage was in August. But we can tell the very day of his embarkation, for Cæsar informs us that on the fourth day of his arrival in Britain (the day of arrival included) occurred the full moon⁶; and, as the harvest was nearly over, it must have been the full moon (if there was one) late in August. We turn to De Morgan's *Book of Almanacks*, which gives us the full moons from 2000 years B. C. to 2000 A. D., and we find that in B. C. 55, the year in question, the full moon was on the night of

¹ B. G. iv. 1.

² "Exigua parte æstatis reliqua."—*B. G.* iv. 20.

³ "Frumentum ex aquis in castra quotidie (Cæsar) conferebat."—*B. G.* iv. 31.

⁴ "Omni ex reliquis partibus demesso frumento, una pars erat reliqua."—*B. G.* iv. 32.

⁵ "Propinqua die æquinocitii."—*B. G.* iv. 36.

⁶ "Post diem quartam quam est in Britanniam ventum, naves XVIII . . . leni vento solverunt. . . . Eadem nocte accidit, ut esset luna plena."—*B. G.* iv. 28, 29. "Post diem quartam" means the fourth day current, including the day of the arrival as the first. Thus, "Neque te illo die, neque postero vidi, . . . post diem tertiam veni," &c.—*Cic. Philip.* ii. 35.

Wednesday the 30th August, or, to speak strictly, at 3 A.M. in the morning of Thursday the 31st August. This may be received as a fact capable of mathematical demonstration, and has, therefore, been assumed by all commentators as a fixed point. The fourth day before the full moon was, therefore, Sunday the 27th August, on which day, consequently, Cæsar reached Britain; and, as he had set sail the night before, he of course started on Saturday the 26th August.

I need scarcely mention that Boulogne is a tidal harbour, in other words, that it can only be entered or quitted at high water, or at least not at low water. Now, to ascertain the state of the tide, we have only to determine the moon's age. At Boulogne it is high water at full moon at 11.20, and, as the tide is 48 minutes earlier every preceding day, it follows that on 26th August, B.C. 55, being the fifth day before the full moon (the day of full moon included), it was high water about 8 P.M. At this time then, or an hour or two previously, the ships would be rapidly dropping down from the harbour and anchoring outside, ready to sail at the word of command.¹ Many hours would be consumed in emptying the port of its crowd of transports, and the fleet would scarcely be under weigh before midnight. But we are not left to conjecture on this head, as Cæsar tells us that he started about the third watch, i.e. about twelve o'clock at night²; and the

¹ It seems to be a general notion that Cæsar sailed at high water or at the ebbing of the flood, and this would be true if it be meant that his ships then dropped down from the harbour: but it would not be true in the sense of actually weighing anchor on his voyage across the channel; for, as he did not set sail until midnight, high water would by that time have been long past. "Ἐπέρασε δὲ κατὰ τὸν καφὸν τῆς ἀμπώτεως." — *Appian*, cited *Monum. Hist. Brit.* p. 50. "Ταῖς ἀμπώτεσι τοῦ πελάγους συμφερόμενοι." — *Ib.*

² "Tertia fere vigilia." — *B. G.* iv. 23.

moon, which had been long up, was nearly at the full, and would thus facilitate both the embarcation and passage.

While Cæsar is crossing the channel let us form an estimate of the invader's force. He tells us that he took with him two legions, the 7th and the celebrated 10th, in eighty transports.¹ A legion, in theory, consisted of ten cohorts, and each cohort of three maniples, and each maniple of two centuries, so that, if a century contained, as it was supposed to do, 100 men, the total number in a legion would be 6000. But, in fact, a legion had seldom if ever its full strength, and usually consisted of about 4,200 men, so that Cæsar's two legions on this occasion would probably not exceed 8,400. We may arrive at much the same result by another process. Of his eighty transports, Cæsar lost twelve in Britain, which would reduce them to sixty-eight. Two of them, on their return to Gaul, were drifted beyond the port for which they were bound, and the troops on board were obliged to land some way off to the south, and it is incidentally mentioned that these two transports carried together 300 men, or 150 each.² Now, if every one of the sixty-eight vessels was freighted with the same number, the total amount would be 10,200; but the two unlucky transports may have been thrown out of their course from being the most heavily laden, and if so it may well be supposed that the whole army was not much above 8,400. Professor Airy assumes 8000, and this calculation cannot be very wide of the truth.³

¹ "Navibus circiter LXXX onerariis coactis, contractisque, quod satis esse ad duas legiones transportandas existimabat."—*B. G.* iv. 22.

² *B. G.* iv. 37.

³ A writer of the fourth century observes: "C. Cæsar cum decem

As to the cavalry we are much more at a loss for data. Cæsar had altogether in Gaul eight legions and 4000 horse¹, which would give 500 horse for each legion. This calculation would yield for the two legions which passed into Britain a complement of 1000 cavalry. This inference, however, would be unjust, as in any expedition the relative ratios of infantry and cavalry were extremely variable, and depended altogether on circumstances. Thus in the following year Cæsar left three legions only in Gaul and 2000 horse, and took with him to Britain five legions and yet only 2000 horse.² If indeed we might judge of the number of cavalry in the first invasion from that employed in the second, then as five legions were accompanied with 2000 horse, two legions would require 800 horse. All that we can say with certainty is that the cavalry did not exceed the number, whatever it was, which could be conveyed in eighteen vessels; for we have already had occasion to mention that eighteen transports were wind-bound at Ambleteuse, and so unable to reach Boulogne, and that Cæsar ordered the cavalry, as the more movable body, to ride over to Ambleteuse, and, embarking there, to follow him with all speed.³ If these eighteen transports were of equal burden with the rest, then as we know that two ships carried 300 men, or 150 each, and a vessel which could be freighted with 150 men would take from forty to fifty horses, say forty-five⁴, we may infer that the eighteen ships conveyed about 800 cavalry, so

legionibus quæ quaterna millia Italorum habuerant, per annos octo ab alpihus ad Rhenum usque Gallias subegit, . . . in Britanniam transivit." — *Rufus Sextus*, cited *Mon. Hist. Brit.* p. lxxi.

¹ B. G. v. 5.

² B. G. v. 8.

³ B. G. iv. 23.

⁴ Horsley's Britain.

that the force which accompanied the expedition may be reckoned at about that amount.

It may appear a step of singular boldness that Cæsar should have attempted the conquest of the island with such inadequate means; but it must be remembered that Cæsar, with all his exertions, had been unable to obtain any reliable information, and that he could not tell whether the approaching struggle was to be with a nation of heroes or a hive of drones.

We left Cæsar and his fleet under sail from Boulogne. The transports for the soldiers were eighty in number; but besides these there were a few fast-sailing war-galleys, or triremes, Cæsar himself embarking in one of them, and distributing the rest amongst the officers of his army, the Quæstor, the Legates, and the Prefects.¹ The wind must have been favourable, for as the ships at Ambleteuse had been prevented by it from sailing to Boulogne it was blowing from the S. W., and was, therefore, just what was desirable for a passage from Boulogne to Britain.

The object of Cæsar's starting at twelve o'clock at night was, apparently, that he might land by morning, and so have the whole day before him for military operations. Accordingly, at 10 A. M. (or the fourth hour, as the Romans always reckoned from 6 A. M.) on 27th August, Cæsar was off the coast of Britain. What part of the coast was it? Cæsar had embarked from the country of the Morini because they were nearest to Britain², and he tells us in another place that Kent, the eastern corner of the island, was the place for which ships from Gaul were commonly bound.³

¹ "Quæstori legatis præfectisque distribuit." — *B. G.* iv. 22.

² *B. G.* v. 2.

³ "Hujus lateris [the south] alter angulus qui est ad Cantium,

We should suppose, therefore, that Cæsar followed the usual track, and made for one of the ports which then as now were the most frequented, viz. Dover or Folkestone. Indeed we are told as much by Dion, who says that Cæsar sailed *from* the usual port *to* the usual port, but that he could not land at the latter because it had been preoccupied by the enemy.¹ And it may be added, that, unless he pursued the usual track, how could the Britons have known where to encounter the debarcation? But let us hear Cæsar himself, who has drawn a sketch of the coast such as it presented itself on his first approach. "The nature of the place," he says, "was on this wise: the sea was so hemmed in by confined *mountains* that a javelin could be thrown from the higher ground upon the shore."² Quintus Cicero, the brother of Mark Tully, and one of the generals in Cæsar's army on the second expedition, describes, in his letters home, the outposts of Britain as defended by *stupendous masses* of natural bulwarks.³ To what part of Albion can this description answer, but to the high chalk cliffs frowning between Sandgate and the South Foreland, which do indeed so hem in the sea that the idea of a hostile

quo fere ex Gallia naves appelluntur, ad orientem solem spectat."—*B. G.* v. 13.

¹ "Καὶ τὸν μὲν διέκπλον καθ' ὃ μάλιστα ἐχρῆν μετὰ τῶν πεζῶν ἐποιήσατο· οὐ μέντοι καὶ ἢ ἔδει προσέσχεν, οἱ γὰρ Βρεττανοὶ, τὸν ἐπίπλον αὐτοῦ προπυθόμενοι, τὰς κατάρσεις ἀπάσας τὰς πρὸ τῆς ἡπείρου οὖσας προκατέλαβον."—*Dion*, xxxix. 51. How accurately the words describe Dover and Folkestone!

² "Cujus loci hæc erat natura: adeo montibus angustis mare continebatur, ut ex locis superioribus in littus telum adjici posset."—*B. G.* iv. 23.

³ "Constat enim aditus insulæ esse munitos mirificis molibus."—*Cic. Ep. Att.* iv. 16.

descent there, in the face of an enemy, would be military madness. Airy would have us believe that these "mountains" and "stupendous masses" are to be found near Hastings; but as the Astronomer Royal bases his supposition on the assumption that Cæsar sailed from the Somme, which we have shown to be untenable, we need not here discuss the matter with him further.

If Cæsar was disappointed at seeing the natural features of the country, he was probably much more so at another sight which riveted his gaze; the landing-places at the ports were bristling with hostile spears¹, and the heights above, also, were covered with troops, not rude savages, but in good martial array.² The merchants had studiously kept back from the Romans all information of British affairs; but every movement of the invaders had been instantly transmitted from Gaul to Britain, and the consequence was, that, rapidly as the Roman legions had been collected and transports provided, the islanders, or at least the inhabitants of Kent, with no doubt their compatriots of Sussex, had assembled *en masse* to oppose the descent. Cæsar, with his officers, had preceded the rest of the fleet for the very purpose of preparing for the debarcation, of examining the coast, and taking measures accordingly while the transports were coming up. To effect a landing then and there would, of course, be giving an immense and unnecessary advantage to the enemy, and he would not run the risk. He, therefore, lay at anchor until all the transports had arrived, and spent the interval in sum-

¹ Dion, xxxix. 51.

² "Atque ibi in omnibus collibus expositas hostium copias firmatas conspexit." — *B. G.* iv. 23.

moning his officers together, and explaining his views. It would seem that Cæsar, like Wellington and all great commanders, kept his counsels to himself until the moment of action; it was only now, for the first time, that he produced the survey made by Volusenus, pointed out the mode of attack, and assigned to every one his allotted post.¹

By 3 o'clock in the afternoon (called by the Romans the ninth hour) the whole fleet was assembled; and we may here observe, by the way, that, as from Boulogne to Dover is in round numbers twenty-eight miles, and Cæsar himself, in a war-galley, had been ten hours on the way, viz. from twelve at night to ten in the morning, the average speed would be nearly three miles an hour. The transports, on the other hand, had consumed fifteen hours on the passage, viz. from twelve at night to three in the afternoon, which yields an average of only about two miles an hour.²

It was at 3 o'clock, then, in the afternoon, on Sunday, the 27th August, A.D. 55, that Cæsar weighed anchor from before Dover, preparatory to disembarking; and now comes the important and much-agitated question: Which way did he sail; to the left or right, to the west or east? Let us first consider, *à priori*, what a prudent commander might be expected to do under similar circumstances. The usual ports in front of him were preoccupied and impracticable. To the right he would see the precipitous chalk cliffs stretching away to the east till they terminated at the South Foreland, when he would lose sight of land altogether, and only

¹ B. G. iv. 23.

² According to Appian, the voyage from Gaul to Britain was half a day, or twelve hours: "Ἔστι δ' αὐτοῖς ὁ διάπλους ἡμῖν ἡμέρας." — Appian, cited *Monum. Hist. Brit.* 50.

the broad expanse of ocean would meet his eye. The lowlands about Walmer or Deal would not be visible ; and it is at least doubtful whether Volusenus had included them in his survey. On his left was a very different prospect ; for, tracing the line of cliffs westward, he could not fail to observe that they terminated at Sandgate, and that a broad level plain there succeeded. I need not produce arguments to show how peculiarly favourable to a hostile descent is the great marsh lying between Sandgate and Rye. The bones that are piled in the crypt of Hythe church (a mass twenty-eight feet long, six broad, and eight high) bear witness of the fierce encounters which have there taken place between the Britons and their invaders on the British Armageddon ; and the martello towers that still line the shore, and the defensive military canal carried along the edge of the marsh, attest the well-founded apprehension in our own day, that here, if ever, the Continental hosts will attempt a burglarious entry into the islanders' home. It was also late in the day with Cæsar, and, as the sun would set at seven, he had only four hours to choose his ground and effect a landing. But there is another consideration arising out of the plan of operations which he had just unfolded to his officers. The enemy were in such numbers that to force a descent with only 8,000 men in their presence was, if not a desperate, yet a dangerous, undertaking. His object, therefore, was, by the rapidity of his movements, to outstrip his foes, and disembark a sufficient number of troops before they could come up.¹ It was

¹ " Ad nutum et ad tempus omnes res ab iis administrarentur."—*B. G.* iv. 23. " Εφθη τῆς γῆς κρατήσας πρὶν τὴν πλείω συμβοήθειαν ἐλθεῖν." — *Dion*, xxxix. 51.

absolutely necessary, therefore, that he should take advantage of the tide, or, at all events, that he should not mar his designs by stemming a strong current.

But we need not theorise upon the subject, as Cæsar gives us incidentally a piece of information which is conclusive. "Having got," he says, "the wind and *the tide* at the same time in his favour, he gave the signal and hoisted anchor, and, advancing about eight miles from that place, he brought his ships to at an open and level shore."¹ Thus he certainly sailed *with the tide*, and, if we can only discover the direction of the tide, we shall know which way Cæsar turned the head of his vessel. Now it may seem at first sight a somewhat difficult problem to calculate the current of the Channel at 3 o'clock on a particular day nearly 2,000 years ago; but the phenomena of nature are unchangeable, and I shall satisfy you that the question can be solved with little trouble and with the greatest exactness. The tides, it is well known, occur twice in the twenty-four hours, and each time about twenty-four minutes later, so that the corresponding tide on each successive day is forty-eight minutes later²: thus, if it be high water at Dover to-day at 12 o'clock at noon, it will be high water there to-morrow at twelve minutes before 1 P.M. After a cycle of fourteen days, these tides recur in the same order of succession. The reason is that the new moon and full moon both act upon the ocean in a similar manner; and, during the interval between the

¹ "Et ventum et æstum uno tempore nactus secundum, dato signo et sublatis anchoris, circiter millia passuum VIII ab eo loco progressus, aperto ac plano littore naves constituit."—*B. G.* iv. 25.

² The Tidal Tables say fifty minutes per day. "The mean interval of time between two consecutive high waters is about 12h. 25m."—*Tidal Tables for 1859*, p. 99.

new moon and full moon, and, of course, equally between the full moon and new moon, the tide runs the whole round of ebb and flow until it returns back to the same hour. The period of one lunation, or one revolution of the moon round the earth, is twenty-nine days and a half, so that from new moon to full, and again from full moon to new, is, in strictness, not fourteen days, but fourteen days and three quarters. It is evident from this that, in order to find the time of high water for any particular day, we need only determine the time of it at new or full moon, and the intervening periods of ebb and flow can then be ascertained by allowing forty-eight minutes per diem from the last new or full moon. Accordingly, the tables of the tides are usually calculated for the new and full moons only. However, there are slight disturbing influences which in some degree vary the general rule, and, to enable the mariner to follow them without difficulty, there are published annually, under the direction of the Admiralty, "The Tidal Tables for the English and Irish Ports,"¹ which show at a glance when it is high water at the principal places round the coasts of England and Ireland for every day in the year.

In speaking of the tides we must distinguish between the landsman's tide and the seaman's tide. The landsman standing on the shore, beholds the water rise and fall, and thinks of the tide with reference to its height and depression only, whereas the seaman cares little for the rise or fall, which he does not see, but is very attentive to the current caused by the tide, which aids or impedes the progress of his vessel. The direction of

¹ Published by J. O. Potter, 31, Poultry, London ; and 11, King Street, Tower Hill, London.

the current is as regular as the rise and fall of the tide, but both are subject to occasional disturbances from the action of the wind or the state of the atmosphere. These variations, however, it is believed, seldom if ever exceed an hour either in the time of high or low water, or of the turn of the current. As the British Channel is so constantly covered by the mercantile navy of England, great pains have been taken to ascertain the turn of the tide in this part. We are here concerned only with that in the Straits of Dover, and I shall, therefore, content myself with stating the rule laid down for the guidance of mariners in the annual referred to. The Admiralty direction then is, that the stream off Dover sets westward at four hours after high water, and runs west for the next seven hours, and then turns eastward and runs so for the next five hours.¹ Thus, to ascertain the current or direction of the tide at Dover, we find first the time of high water there, and four hours after that the stream begins to run west, and will so continue for seven hours, when it will again turn east, and run so for the next five hours. We have now to apply this principle to the year B. C. 55. The full moon was on the 31st of August at 3 A. M. I turn to the Tide Tables published by authority for the month of August of the present year,

¹ "About one mile S.S.E. of the South Foreland Lighthouse, the stream begins to set to the eastward about 1h. 30m. before high-water on the shore at Dover, and runs from N.E. by E. to E. N.E. about five and a half hours, or till *four hours after high water*. It then turns and sets W.S.W. quarter W. about seven hours. At Dover the flowing stream very seldom continues more than five hours, and sometimes scarcely so much. It is nearly the same at Ramsgate. To the northward of the South Foreland the streams change their direction to N.E. half N., and S.W. half S."—*Potter's Tide Tables*, 1859, p. 110.

1859, and I find that the moon will be at the full on the 13th of August. As regards the moon, therefore, the 31st of August, B. C. 55, and 13th of August, 1859, are corresponding days. To find, then, the time of high water at Dover on the 27th of August, B. C. 55, when Cæsar arrived (being the fourth day before the 31st of August, when was the full), we have only to look for the time of high water at Dover on the 9th of August, 1859, being the fourth day before the 13th of August, when will be the full. High water at Dover on the 9th of August, 1859, will, according to the Tables, be at 7.31 A. M. It was, therefore, high water at 7.31 A. M. at Dover on the 27th of August, B. C. 55. But at four hours after high water the tide runs west, and so continues for seven hours; therefore, at 11.31 A. M., on the 27th of August, B. C. 55, the stream began to run west, and held on in the same direction until 6.31 P. M.¹ At 3 o'clock, therefore, on the 27th of August, B. C. 55, the current was flowing westward at its maximum velocity, and consequently, as Cæsar sailed at 3 o'clock on the 27th of August, B. C. 55, in the same direction as the tide, he must have steered westward toward Romney Marsh, and could not possibly have made for Deal.²

¹ Lieutenant Burstal does not differ much, for he computes "that during the interval between 12.40 and 6.50 P. M. of Aug. 27th (B. C. 55), the stream was setting to the westward, and therefore if Cæsar weighed anchor at 3.30 P. M. the stream was setting to the W. S. W."—*Dunkin's Hist. of Kent*, vol. ii. 73.

² As the place of debarcation depends altogether on the direction of the tide at 3 o'clock P. M. on 27th of August, B. C. 55,—that is, the fourth day before the full moon, which was on August 31st at 3 A. M.,—it may be as well to see the range of the tide for every day before full moon throughout the current year 1859. From the

But Cæsar tells us in the passage I have quoted, that he had not only the tide, but also the *wind* in his favour, and this may possibly suggest an apparent objection — viz., that if the wind was in his favour in coming from Boulogne to Dover, it must have been in the south or west; and then, if it still continued in that quarter, and Cæsar sailed before it, he must have steered to the east. But, in the first place, supposing the wind to have blown from the south, it would have been favourable to a movement, from a point opposite Dover, either to the east or west. However, I would rather offer an explanation, which will convert the objection into an argument the other way; viz. that the wind had, in fact, veered round since the passage from Boulogne: Thus, Cæsar says that he started from his anchorage off Dover, having *got* the wind in his favour, and the Latin word *nactus* implies that the wind had under-

Tide Tables it will be seen that on January 14th, being the fourth day before the full moon, high water at Dover is at 5.31 A. M.

February 13	6.13
March 14	6. 8
April 13	7.13
May 12	6.55
June 11	7.20
July 11	7.55
August 9	7.31
September 8	8.27
October 7	7.47
November 6	7.44
December 6	7.31

Thus the earliest high water at Dover is at 5.31 A. M., and the latest at 8.27 A. M., and as the stream turns west at four hours after high water and continues for seven hours, it turns at the earliest at 9.31 A. M. and runs till 4.31 P. M. and turns at the latest at 12.27 P. M. and runs till 7.27 P. M. In no case, therefore, would the tide be running east at 3 P. M.

gone a change. And this conclusion is strongly evidenced by another circumstance, which, except on this supposition, is inexplicable. When he embarked at Boulogne he despatched the cavalry to Ambleteuse, eight miles off, with orders to follow him with all haste¹; but, much to Cæsar's disappointment, they did not leave that haven for Britain until the fourth day after², and no plausible reason can be given for this except that, for the whole of this interval, the wind was contrary; that is, the wind had shifted.

At 3 o'clock P.M., on Sunday 27th August, B.C. 55, Cæsar quitted his moorings before Dover, and sailed to the west. For six or seven miles he had on his right the beetling bulwarks of the island, the precipitous cliffs. The cavalry and charioteers of the Britons, followed by the infantry, might be seen at the same time moving along the heights and keeping pace with the fleet, and ready to encounter the enemy in any attempt at debarcation. On nearing Sandgate, and between that place and Hythe, Cæsar would see the cliffs retiring inland, and leaving a narrow triangular strip of level ground between themselves and the sea. Here it may be thought, perhaps, that Cæsar landed, but a little reflection will lead to a different conclusion. As you stand on the high cliffs and look down upon this triangular plain, the extent of it appears sufficient to accommodate a small army, but not so as you sail along the coast. On reaching it, as I rowed from Dover to Hythe, I immediately concluded in my own

¹ "Equitesque in ulteriorem portum progredi, et naves conscendere, ac se sequi jussit: ab quibus cum paullo tardius esset administratum," &c. — *B. G.* iv. 23.

² "Post diem quartum quam est in Britanniam ventum." — *B. G.* iv. 28.

mind that the Roman eagles could never have alighted here from want of space. The cliffs, too, in the background are so near as to give an enemy an immense advantage, and the seashore could scarcely be called *apertum littus*. The only temptation to place the landing on this spot is, that at the eastern corner rises the brow of Shorncliffe, a high platform (which has ever been, and is still, a favourite military station); and, at the south-western corner of Shorncliffe, and therefore overlooking the triangular plain, is an ancient Roman camp, which, of course, passes for Cæsar's camp. I cannot think, however, that it has in reality any connection with Cæsar. His camp on this occasion was apparently on the sea-beach, so as to give protection to the war-galleys drawn up on land. We know also that the Britons had a full view of it, as they despised its narrow dimensions; but, if perched on the edge of Shorncliffe, it could scarcely have been made the subject of minute examination. The shore also just beneath Shorncliffe is anything but *molle* or soft¹, as the rocks here rise abruptly out of the waves. Cæsar then sailed by this triangular strip, and rounding the precipitous cliffs which had so long defied him², came to the creek of Limne.

But here, to make myself intelligible, I must notice the extraordinary changes which have occurred in this part of the coast. I am not at all disposed to believe in general the large and loose statements frequently broached as to the alterations of the earth's surface within the memory of man. I was, therefore, at first very incredulous as to the assertions respecting

¹ B. G. v. 9.

² "Ἄκραν τινὰ περιπλεύσας." — *Dion*, xxxix. 51.

the growth of *terra firma* in this quarter, but I am satisfied from personal observation that the sea here has to a great extent retired, and that what is related upon the subject may not improbably be the truth. Possibly the whole of Romney Marsh may in antediluvian times have been covered by the sea, and have been gradually formed by the accumulation of shingle through countless ages; at least, wherever I visited the military canal which laves the foot of the elevated border round the marsh, the soil, which has been excavated, is decidedly the same shingle as is still cast up by the tide. It is said that Dungeness Point advances from this accretion about seven feet annually. But to pass from the period of the Ichthyosauri to that of the first century before Christ, of which we are speaking, the marsh, though its general configuration must have been the same then as at present, yet presented in some respects very different features. Instead of one regular curvilinear line from Sandgate to Dungeness, there were two inlets which have since been silted up. The first was at Romney, where originally was the mouth of the river Rother, and by which the Danes on one occasion ascended as far as Appledore. The port was first at Old Romney, and then, as the sea retreated, at New Romney, and then, when the Rother (from the effect, it is said, of inundations during a fearful storm) was diverted from its channel, and entered the sea at Rye, the port of Romney ceased altogether; and, at the present day, no one who did not examine the ground very curiously, would dream that such a haven had ever existed. The other inlet, with which we are more immediately concerned, was that between Dymchurch and Hythe, and extended inland as far Lympne or Limne. Indeed, the name

of Limne signifies in the old British a haven¹, and corresponds to the Greek word λιμήν, a port; and Ptolemy's καινός λιμήν, is commonly thought to mean Limne.² The strong south-easterly winds (for Dungeness Point is a shelter from the coast) gradually choked up the port of Limne, and the haven then shifted more to the east, where West Hythe now stands. But the same causes still operated, and West Hythe in its turn became deserted by the sea, and then the haven was transferred to Hythe. This was in the time of the Saxons, for Hythe in Saxon is the same as Limne in British and Greek, and signifies a harbour. The historical testimony that Limne and West Hythe and Hythe have been successively havens at the end of the bay or inlet is unexceptionable, and indeed skeletons of vessels have been dug up at Limne where now is a rich pasture. But *Non vedo non credo*, "Seeing is believing;" and if any one doubt of this metamorphosis from sea to *terra firma*, let him walk from Hythe, as I have done, to the heights overlooking the marsh, and he will observe the plain below him lying in ridges or waves, as if the ocean had only just quitted its embrace. Even in the eighth century Leland speaks of Hythe in the following terms:—"The haven is a pretty road and lyeth meetly straight out of Boulogne. It crooketh so by the shore along, and is so backed from the main sea by shingle, that small ships may come up a large mile as in a sure gut."³ On looking at the old maps⁴ of

¹ Lambarde's Perambul. 184.

² Ptolemy, ii. 3, 4. The state of this part of the marsh about A. D. 1600 will be seen from the annexed map, copied from one in the Cottonian Collection at the British Museum.

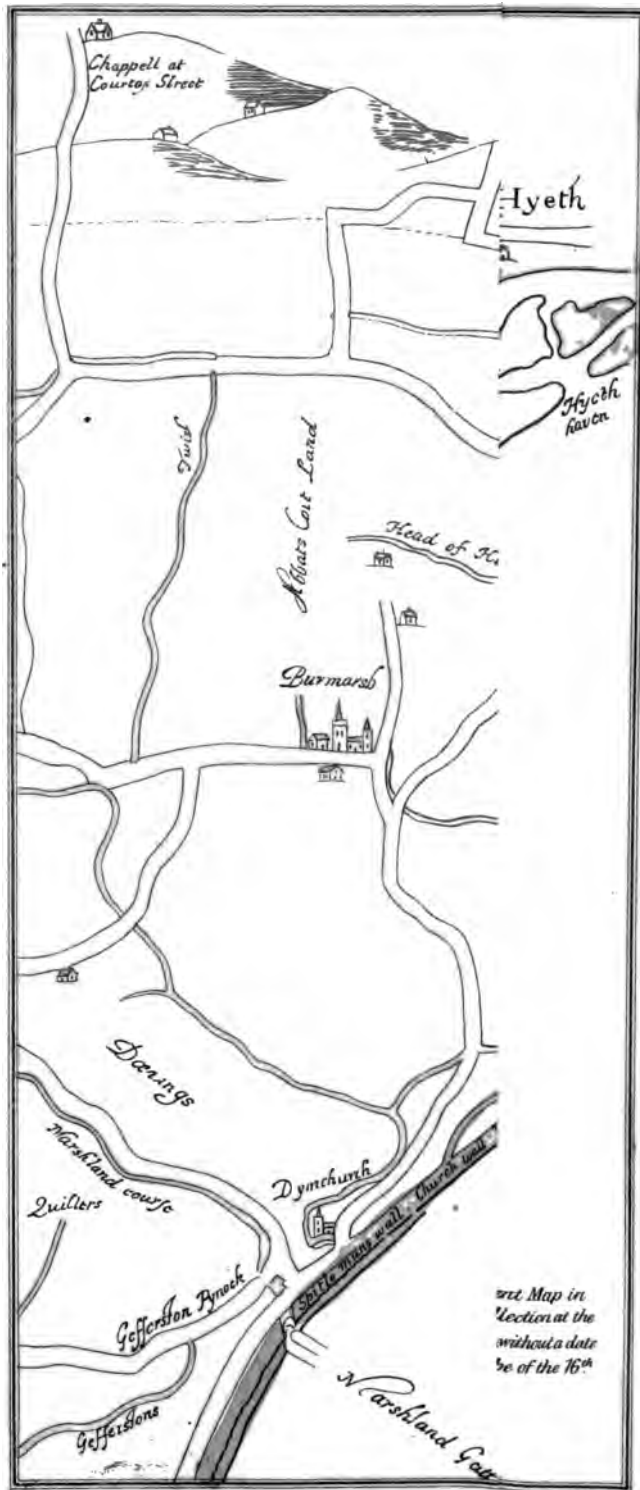
³ See Hasted's Kent.

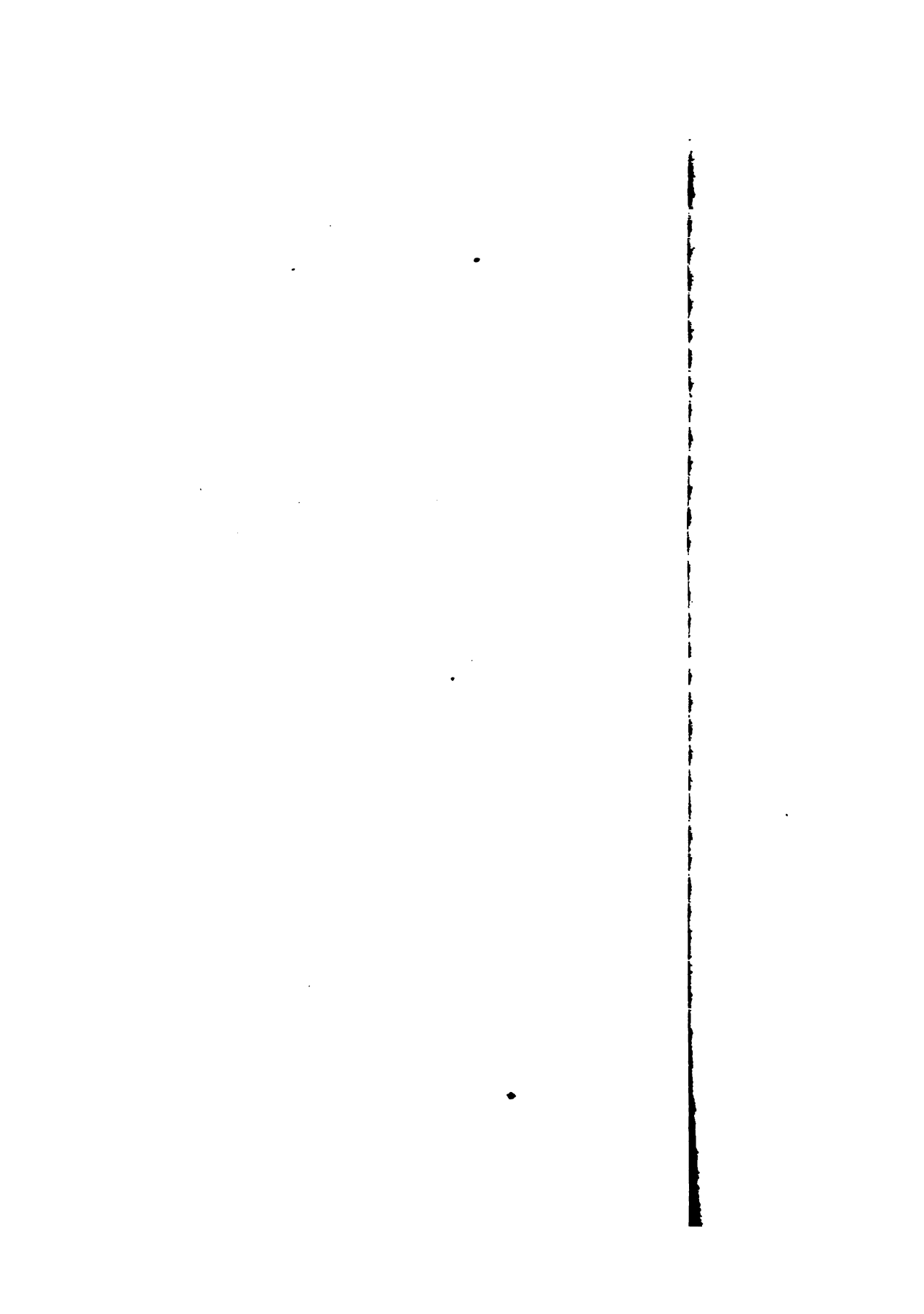
⁴ A copy of an old map in the Cottonian Collection at the British

this part of the coast, I find what I have not seen noticed elsewhere, viz. that the bay of Limne contained within it two islands. An anecdote related of one of Cæsar's soldiers refers to an island in connection with the camp, and I had always supposed, until I met with these ancient charts, that the story was an idle invention; but the circumstance, so apocryphal before, becomes thus no inconsiderable argument for placing the descent in this locality.

Cæsar had reached the creek of Limne, and on the western side of it was the shore where the debarcation was to be made. It was *planum* or flat as he describes it, for there was not a single elevation throughout the whole marsh, and it was also *apertum* or open, for the heights to the north were at least a mile distant. The sea-beach was also *molle*, or soft, not with mud or ooze, which would be a very inconvenient landing-ground, and ill adapted for a conflict, but soft in a sailor's sense, i. e. it consisted of shingle, than which nothing can be more favourable to the security of vessels. The pebbles being rounded do not cut the ships' timbers, and being also loose offer no resistance. Sand, on the contrary, which a landsman might consider soft, is, in naval phraseology, of the hardest kind, as it has no "give," and a ship beating against it would soon be shattered to pieces. I am glad to find, even in the Astronomer Royal's dissertation, the admission that "this beach

Museum is inserted in this work. Harris's *History of Kent* gives an old map from Dugdale, which represents two islands before Hythe, and a long gut (that alluded to by Leland) running eastward. So also does the map in Speed's *History*. The map of Richard of Cirencester points out nothing remarkable as to Romney Marsh, but the scale is too small to furnish an argument either way. The oldest maps of England will be found in Gough's *British Topography*.





is very favourable for landing." The spot also offered other advantages. The interposition of the creek obliged the enemy to make a circuit, and if expedition were used, Cæsar might land before the British foot could come up. As for the cavalry and charioteers, they were already there and lined the shore. It may also have entered into his calculations that the harbour of Limne, though not capable of containing his fleet, and now probably occupied by the enemy, and commanded by the heights on the north, would, so soon as he was in possession of the country, be a useful medium of communication with Boulogne, the corresponding port on the opposite coast. On his left, too, was the bay of Dungeness, where, except the wind blew from one particular quarter, the east, any number of vessels might ride at anchor in safety.

It was now between five and six o'clock in the afternoon, and the tide still rising¹; a very favourable circumstance for the debarcation, and which had no doubt been counted upon. The wind was from the east, and the waves were tumbling in, but not with sufficient violence to offer any serious obstacle to the descent. Cæsar, therefore, gave the word of command, and the ships, so far as the shelving shore permitted, were run upon the beach. The horsemen and charioteers of the Britons which clouded the strand now poured such a shower of javelins upon the Roman galleys that even Cæsar's hardy veterans dared not face the storm and spring from their ships.² Besides the weight of their own arms they had also to buffet the waves, and in ignorance themselves of the localities were engaged

¹ High water at Hythe on that day (27th Aug.) at 8 p. m.

² "Nostros navibus egredi prohibebant." — *B. G.* iv. 24.

with a foe to whom the shallows were familiar. Cæsar confesses that his men shrank from the conflict. The eye of the commander looked anxiously round, and in order to check the fierce onset of the natives, and give space for the debarcation, he ordered the triremes, armed with slings, and arrows, and cross-bows, to discharge a volley on the enemies' front. This produced the desired effect; for, galled by the sudden flight of missiles from an unexpected quarter against their half-naked bodies, the Britons retreated a few paces, when the standard-bearer of the renowned tenth legion seized the opportune moment, and shouting to his men, "Soldiers, follow me! For Cæsar and the Republic!" threw himself into the sea, and struggled to land. His comrades followed by military instinct the example of their leader; and, dashing after the ensign, rushed to close quarters. Now came the tug of war. The Romans were not in rank, and their heavy armour impeded their movements. The Britons, on the other hand, with their small bucklers, short spears, and light swords, were here, there, and everywhere¹, and before the Romans could form, many a knot of them was cut in pieces. Victory trembled in the balance, when again the great captain displayed his military coolness. Wherever along the lines the enemy pressed hardest upon the legionaries, Cæsar despatched the long-boats with succours to their relief. The Romans recovered more and more from their disorder, and soon the tide

¹ "Τὰ δὲ ὄπλα αὐτῶν ἄσπις καὶ δόρυ βραχὺ, μῆλον χαλκοῦν ἐπ' ἄκρον τοῦ σφύρακος ἔχον, ὥστε σειόμενον κτυπεῖν πρὸς κατάπληξιν τῶν ἐναντίων· εἰς δ' αὐτοῖς καὶ ἐγχειρίδια."—*Xiphilin*, cited *Mon. Hist. Brit.* p. lx. "Ἀσπίδα μόνην στενήν περιβεβλημένοι καὶ δόρυ· ξίφος δὲ παρηρημένοι, γυμνοῦ σώματος· σφύρακος δὲ ἢ κρανοῦς οὐκ ἴσασιν χρῆσιν."—*Herodian*, cited *Mon. Hist. Brit.* lxiv.

began to turn, and the Britons to experience how little undisciplined valour can prevail against a compact body animated by one soul, and directed by an experienced tactician. No sooner were Cæsar's troops in battle-array than their wonted vigour and confidence returned, and the Britons were discomfited and retreated. Cæsar, however, had no cavalry with him, and this it was, according to his own account, that saved the enemy from a total defeat.¹

Now, for the first time, a Roman planted his foot on British soil. It was a memorable event; and, if I mistake not, the tradition of it has been preserved in the name of the spot where the descent was made. In the most ancient records, as Domesday Book, Romney Marsh is written Romanel², and the natural inference is that it was so called from the Romans. The whole marsh is subdivided into Guildford and Walland Marshes, to the west; Denge Marsh, to the south; and Romney Marsh proper, to the east. The latter was the portion where the Romans landed, and the town of Romney, called after them, stood at the extremity of it on the eastern bank of the now scarcely traceable channel of the Rother.

If our hypothesis that Cæsar landed at Romney Marsh be well founded, of course the theories which assign other localities for the landing are erroneous. There are, however, two opinions which have received the sanction of very distinguished men, and therefore deserve a passing notice. Cæsar, says Halley, sailed to the east, and disembarked at Deal. Cæsar, says Airy, sailed to the west, and disembarked at Pevensey. Let us first take the case of Deal.

¹ "Hoc unum ad pristinam fortunam Cæsari defuit."—*B. G.* iv. 26.

² Hasted.

Halley, by calling attention to the turn of the tide as an important element in Cæsar's narrative, led the way to the determination of the true place of Cæsar's landing, though he failed to discover it himself. As his argument cannot fail to be interesting, I will read you an extract from it. Those who wish to peruse the whole paper, will find it in the third vol. of the Philosophical Transactions, p. 440:—

“As to the place,” he says, “the high land and cliffs described could be no other than those of Dover, and are allowed to have been so by all. It remains only to consider whether the descent was made to the northward or southward of the place where he anchored. The data to determine this are:—1. That it was four days before the full moon; 2. That that day, by three o'clock in the afternoon, the tide ran the same way that he sailed; 3. That a S. by E. moon makes high water on all that coast, the flood coming from the southward. Hence it will follow, that that day it was high water about eight in the morning, and consequently low water about two; therefore, by three the tide of flood was well made up, and it is plain that Cæsar went with it; and the flood setting to the northward, shows that the open plain shore where he landed was to the northward of the cliffs, and must be in the Downs; *and this I take to be little less than demonstration.*”

Here the astronomer is correct enough in the time of high and low water on the day mentioned; but he falls into error in therefore concluding that the current was at 3 P.M. in full flow to the north. The theory that when the tide rises it runs to the north, and that in ebbing it returns to the south, may be true generally; but the mistake made was, that he did not allow for

the disturbances created by the obstruction which the tide encounters in forcing its way amongst islands and through narrow channels. It is one thing to calculate forces in the abstract, and another to apply them, taking into account the resistance from friction. The present Astronomer Royal, in order to set the matter at rest, applied for information to Captain F. W. Beechey, who had recently made a survey of the Channel, under the directions of the Admiralty, and the answer was substantially in accordance with the tidal tables. "At full and change of the moon," he says, "the stream makes to the westward off Dover, at one and a half mile distance from the shore, about 3^h 10^m, and there does not appear to be much difference in this part of the Channel between the turn of the stream in shore and in the centre. . . . Winds greatly affect the time of turn of the stream. The stream runs to the west about six and a half hours, after which there is slack water for about a quarter of an hour."¹ Now, if at full moon the tide runs west at 3 P. M., it follows that on the fourth day before the tide would begin to run west about noon, and at 3 P. M. would have acquired its maximum velocity in that direction. Thus the very argument which Halley made use of triumphantly to show that Cæsar sailed to Deal, is a demonstrative proof that he sailed towards Romney Marsh. Another objection to the debarcation at Deal may be drawn

¹ Archæolog. vol. xxxiv. To test the accuracy of this account, I requested my friend Mr. Barton, of Dover, to observe for me on 18th January, 1859 (the day of the full moon), at what time the tide turned west, and he returned the following answer: — "18th January, 1859. Sir F. W. Beechey is quite correct in his statement, as the tide turned, and commenced running west, a few minutes before three o'clock this afternoon."

from a circumstance attending Cæsar's expedition in the following year. Cæsar again started from Boulogne at night, and steered for the same place where he had landed before; but during the night his fleet was drifted by the current, and in the morning he found Britain, i. e. the South Foreland, on his left hand. Had he been making for Deal, this was just in the line for it; but what did Cæsar do? He took advantage of the turn of the tide back again toward the west, and then followed it till, by dint of rowing and the aid of the stream, he arrived about noon at his former landing-place.¹ Neither do the features of Deal at all correspond to the face of the country such as Cæsar depicts it. Where are the woods and the corn lands, to which repeated reference is made in the Commentaries? I will not say that there is not a tree or a corn field near Deal, but the character of the district is pastoral. From Deal to Canterbury is one great grazing plain, undiversified by a single coppice. Where, again, are the marshes, which are put prominently forward in every writer's account? Cæsar speaks of the *vada* or shoals (*B. G.* v. 26); Dion of the *τενάγη* or lagoons (xxxix. 51); Plutarch of the *τόπον ἐλώδη καὶ τελματώδη*, the marshy and swampy ground (*Plut. Cæs.* 16); and Valerius Maximus of an island formed by the ebb and flow of the tide (*Val. Max.* iii. 2). But, as to the part about Deal, I may use the very words of Halley himself, that "it is known to be a firm champaign country, without fens and morasses."² Halley, indeed, thinks the difficulty removed

¹ "Longius delatus æstu, ortâ luce, sub sinistrâ Britanniam relictam conspexit. Tum rursus æstûs commutationem secutus remis contendit, ut eam partem insulæ caperet quâ optimum esse egressum superiore ætate cognoverat."—*B. G.* v. 8.

² *Philos. Trans.* vol. iii. p. 422.

by translating *τενάγη*, which most staggers him, by the ooze of the sea; but if he supposed that there was a wet and muddy border from the wash of the waves along that coast, he was altogether mistaken, as the beach is a fine dry shingle. Where, again, is the river backed by a commanding height, on which the Britons were posted at the distance of twelve miles from Cæsar's camp? The Stour at Canterbury is eighteen miles from Deal, and if it approaches nearer on its way to Sandwich, it flows through a low, marshy ground, where we shall look in vain for any strong military fastness, of a forestal character, such as the Britons are said to have occupied.¹

Those to whom faith furnishes a strong imagination, are said to have seen the remains of fortifications about Deal, which, of course, are ascribed to Cæsar. But I can only say that, in walking from Deal by Walmer to the commencement of the chalk cliffs, I endeavoured in vain to find anything of the kind. If there be such remains, they belong probably to the Romans of later times, or to the Saxons or Danes. But I cannot help thinking that they never had any existence, as Camden himself suggests that what are supposed to be military works may be merely heaps of sand and accumulations of shingle.²

The only argument I can hit upon in favour of Deal, is one of very apocryphal authority, for it is drawn from Dion Cassius, who wrote more than two hundred years after the event. He tells us incidentally that Cæsar being repulsed from the usual landing-place, "sailed

¹ "Locum nacti egregie et natura et opere munitum; nam crebris arboribus succisis omnes introitus erant præclusi."—*B. G. v. 9.*

² *Camd. Brit.*

round a certain headland, and so coasted along to another part."¹ This, certainly, if taken literally, looks as if he went round the South Foreland, but I am satisfied that if he had done so, Cæsar would have mentioned so remarkable a promontory. If the descriptive words of so late a writer as Dion are to have any weight, I should interpret them as meaning only that Cæsar sailed round the bend of the precipitous shore between Folkestone and Sandgate, at which latter place the high cliffs turn inland, and where, at that time, the sea flowed up to the harbour of Limpne or Limne; or else that Cæsar arrived at first off Eastweir Bay, which lies between Folkestone and Dover, and then sailed round the cliff which shuts in the bay on the west, to the coast off Lymne which, by the ordnance map, is just about eight miles to the west of Eastweir Bay.

Next for the hypothesis lately advanced by the Astronomer Royal, that Cæsar landed at Pevensey. In the first place, the selection of this spot for the debarcation is simply a consequence flowing from another assumption of the same writer, viz. that Cæsar set sail from the estuary of the Somme; and as I have shown the latter position to be untenable, the former must fall with it. But there are some special objections to Airy's theory of Pevensey, which I cannot pass over. Cæsar describes Portus Itius as thirty miles only from Britain; whereas Pevensey is fifty-two nautical, or sixty English miles, from the Somme, i. e. double the distance, and is, I presume, at least forty miles from any other point of the Continent. How, then, can Pevensey be the coast for which Cæsar steered? Again, consider the bearing

¹ "Ἄκραν οὖν τινα προέχουσαν περιπλεύσας ἐτέρωσε παρεκομισθη."
— *Dion*, xxxix. 51.

of this distance with reference to Cæsar's return from his second expedition. We shall see that Cæsar, on the latter occasion, was about eight hours only in crossing, viz. from nine in the evening to five in the morning, and if he made for the Somme, sixty miles distant, his fleet (overcrowded as it certainly was) must, nevertheless, have progressed at the rate of seven and a half miles an hour, which, as there was no wind, but they trusted to their oars only, may surely be pronounced impossible.¹ I would also venture to ask the question, How it happened, if Cæsar landed at Pevensey, that the Britons were seen upon the heights in expectation of his arrival? Can it be supposed that Cæsar, one of the greatest generals of any age, had made the plan of his debarkation so public that common rumour had transmitted it across the water? On the contrary, Cæsar did not even inform his own officers what were his designs until the very last moment. The only conceivable explanation is, that the Britons had assembled their forces at the havens universally frequented by continental voyagers, and it remains to be shown that Hastings was such a port, more particularly as Cæsar tells us that Kent, and not Sussex, was the coast for which vessels from Gaul were ordinarily bound.² Is it not also strange and unaccountable that Cæsar should have landed in the heart of the dense forest of Anderida? No doubt, the Astronomer Royal contends that the forest ended at Robertsbridge toward the east. But what proof of this is offered? Will not every one who examines the geological map of England be convinced

¹ "Summam tranquillitatem consecutus."—*B. G.* v. 23. All the vessels were row-boats or *actuaris*. (*B. G.* v. 1.)

² "Cantium, quo ferè ex Galliâ naves appelluntur."—*B. G.* v. 13.

that it extended as far as the wealden, i. e. the wooded formation; and, therefore, as far as Hythe? Why else have we so many Hursts (the Saxon for woods) to the east of Robertsbridge? The Anglo-Saxon Chronicle is decisive that even in A. D. 891, the wood Anderida extended, at all events, as far as four miles from the mouth of the Rother; for, "On this river (the Limene) they towed up their ships as far as the wood, four miles from the mouth, and erected a fortress at Appledore."¹ That the debarcation must have been not at Pevensy but in Kent, is also evinced by a circumstance which the Astronomer Royal, I think, has not adverted to, viz. that Cassivelaun, when he had drawn Cæsar beyond the Thames, sent orders to the princes of *Kent* to make an attack on Cæsar's naval camp.² Does not this show incontestibly that the camp was in Kent and not in Sussex? Or will it be said that Kent at that time comprised Sussex? I have never seen it surmised that the ancient borders of Kent were different from the present. Sussex was from time immemorial known as the kingdom of the Regni.

Again, when Cæsar sailed to Britain on the second expedition, he was so drifted out of his right course by the current, that in the morning he found the coast of Britain on his *left hand*. This evidently means that the tide had carried him through the Straits of Dover beyond

¹ Anglos. Chron. A. D. 891. Here by the Limene is clearly meant the Rother, but usually by the Limene was meant the creek of Limne, as in *Anon. Raven.* who, amongst the rivers of Britain, enumerates successively, Durbis (Dover), Lemana (Lymne), Rovia (Rother).

² "Cassivelaunus ad Cantium . . . nuntios mittit, atque his imperat, ut coactis omnibus copiis castra navalia de improvise adoriantur atque oppugnent." — *B. G.* v. 22.

or up to the South Foreland, and then, with the ship's head as at starting, he would have the chalk cliffs between Folkestone and the South Foreland on his left. But I ask, how could this have occurred had the voyage been from the Somme to Pevensey? In that case, the distances were such that the tide, which never drifts a vessel more than eighteen miles as the maximum¹, could not possibly have caused such a deviation from the right line between the Somme and Pevensey.

We return to Cæsar, whom we left on the seashore at Romney Marsh. It was now growing dark, the struggle was over, and the first thing to be done was to entrench a camp. This was customary with the Romans on ordinary occasions, but here it was more especially needed, for it could not be disguised that the position of the victor was a somewhat delicate one. Cæsar, with 8,000 men, was in a strange land, with a hardy and warlike race before him. To attempt the subjugation of the island with so small a band, or even to force his way across the Thames in the direction of the Trinobantes (Essex), where Imanuent and Mandubert were expecting his approach, was palpably hopeless, for his two legions would soon be destroyed in piecemeal. His policy, therefore, was to make the most of his dearly bought victory, and, on the first plausible occasion, to effect a return to the Continent, and, if Britain were worth the time and outlay, then to repeat the experiment the following year with an army equal to the enterprise. In the meantime, the communication with the sea must be kept open, and, consequently, no advance could be made into the interior.

¹ See *post*.

The precise point where the earliest Roman camp was pitched must be matter of conjecture. Some may, perhaps, be inclined to place it on Shorncliffe, where is the ancient camp already alluded to, which is decidedly Roman; but, on second consideration, the site is inadmissible. Cæsar's camp was evidently a temporary one, for its dimensions were narrower than usual, from the legions having crossed the Channel without their baggage¹, and, besides, the triremes were drawn up on shore in juxtaposition to the camp, which could scarcely have been at Shorncliffe, as the seabeach below is at some distance from the *castrum*, and is also dotted with rocks, the last spurs to the west of this iron-bound coast. Others may be disposed to locate the camp at Stuttfall, the Roman quadrangular fortress standing half-way up the hill of Limne, and overlooking the old port; but, had the triremes been drawn on shore at Stuttfall, they could scarcely have been swamped by the tide, a mishap which afterwards overtook them. The building of Stuttfall itself was certainly not erected on this occasion, as it is of much too massive a character. We should say, upon the whole, that the camp of Cæsar was probably on the seaside opposite Limne, and perhaps where the fort now stands. This agrees best with the various features of the description. It would then be a protection to the triremes drawn up under the ramparts, and, again, it would afford credibility to the anecdote of Valerius Maximus, that the camp was not far from an island, and would correspond, also, in two circumstances, appa-

¹ "Quum paucitatem militum ex castrorum exiguitate cognoscerent, quæ hoc erant etiam angustiora, quod sine impedimentis Cæsar legiones transportaverat." — *B. G.* iv. 30.

rently not easily combined, viz. that on the one hand there were marshes round about, and on the other there were corn fields and woods in the immediate vicinity. The latter fact, which so exactly tallies with a site off Limne, would exclude the notion of placing the camp more to the west, in the neighbourhood of Romney, for, in that quarter, though the fens abound, there are few corn fields and no woods.

The Britons, on their side, had felt the weight of Cæsar's legions, and, after a defeat with every advantage in their favour, could not hope to succeed in a conflict upon equal terms. Besides, the troops of Kent and Regnum or Sussex only were now opposed to the invader. The most powerful of the British princes, Cassivelaun, king of the Catyeuchlani (Hertfordshire and Middlesex), was fully employed elsewhere, for he was engaged in an internecine war with Imanuent, king of the Trinobantes.¹ The forces, also, which had been collected on the coast were hastily drawn together, and many of them were beardless youths; at least, the author of the *Dialog. de Oratoribus*, who wrote A.D. 75, introduces Aper as saying that he had conversed in Britain with one who had taken part in the battle at Cæsar's landing²; and, as the anecdote is related 130 years after the event, the Briton in question must have been a

¹ Cæsar, in the second expedition, observes that: "Huic (Cassivelauno) superiori tempore [viz. on the first expedition] cum reliquis civitatibus continentia bella intercesserant." — *B. G.* v. 11, compare v. 20.

² "Ipse ego in Britannia vidi senem qui se fatebatur ei pugnae interfuisse, qua Cæsarem inferentem arma Britannis arcere litoribus et pellere aggressi sunt. Ita si eum qui armatus Cæsari restitit, vel captivitas vel voluntas vel fatum aliquod in urbem protraxisset, idem Cæsarem ipsum et Ciceronem audire potuit, et nostris quoque actionibus interesse." — *Dial. de Orat.* c. 17.

mere stripling in B.C. 55. According to Cæsar, no sooner had the Romans made good their debarcation than the Britons sued for peace, and delivered up Comius of Arras, whom Cæsar, before his passage across the Channel, had sent into Britain, and who, as soon as he landed, had been seized and put in bonds as a spy. We have no other account, and must, therefore, acquiesce in this statement, inconsistent as it appears with the resolute and determined character of the Britons on other occasions. Cæsar¹, who was ready to accept any terms, made a feint of commanding hostages, and hostages were given by some states, by those perhaps which were friendly to the Romans, and were promised by others, but never delivered. Thus a peace, or rather a hollow truce, was concluded, and for a few days there was a calm; the Romans quietly occupying their camp, and the natives pursuing, at least ostensibly, their usual agricultural occupations.

The fourth day of Cæsar's arrival (the day of arrival included), i. e. on the 30th of August, great events occurred. We have seen that eighteen ships, assembled at Ambleteuse, had been unable to make the port of Boulogne, and, in consequence, the cavalry had been ordered from Boulogne to Ambleteuse, to embark there with all expedition. Cæsar complains of a little want of alacrity on the part of the cavalry², and the delay was so fatal that any peevishness on the part of the commander may be excused. The day after the trans-

¹ Dion seems to insinuate that negotiations only were pending, and that no treaty had been concluded when the Britons renewed the contest: "τότε μὲν ὀμήρους αἰτήσαντι αὐτῷ δοῦναι ἢ θέλησαν." — *Dion*, xxxix. 51.

² "Ab quibus cum paullo tardius esset administratum." — *B. G.* iv. 23.

port of the infantry, the wind had shifted from the south-west to the north-east, and the vessels at Ambleteuse could not quit the harbour. At length, on the 30th August, the wind moderated, and a gentle breeze sprang up from the south, when the cavalry hurried on board, and set sail for Britain. The elements had deluded them, for, when in mid-channel, and already in sight from Cæsar's camp, the wind suddenly veered round to the old quarter of the north-east, and blew such a hurricane that the vessels were beaten out of their course. Some were driven back to the Continent, and others borne away to the western parts of the island, where they cast anchor, and endeavoured to ride out the storm; but the violence of the waves was such that, being afraid of running into any British harbour, for fear of assassination, they were obliged to put to sea again and steer for the Continent, so that, eventually, not a single trooper ever reached the Roman camp.¹ The eighty vessels by which Cæsar had transported his legions, and which had been anchored off the shore in the Bay of Dungeness, were also victims to the tempest. I have heard an old weather-beaten sailor remark that there is no finer bay than this along the southern coast, and that ships may ride there in safety at all times, provided the wind do not come from the east. Unluckily, this was partly the quarter from which the wind now blew, and the consequence was that the transports became unmanageable; many of them foundered, and the rest lost their sails and anchors, and were rendered unfit for service. Even the triremes, which had been drawn up on the beach, did not escape, for at night was the full moon, when was the spring tide. In gene-

¹ B. G. iv. 28.

ral, no doubt, the highest tide is a day and a half after the full; but, to use the language of the old sailor with whom I conversed, "It is the wind as rules the tides." In Dungeness Bay, for instance, when the wind is in the north, the tide rises to an unusual height; and, when the wind is in the south, it falls proportionally low. The hurricane which now swept the ocean was from the north-east; and the combined effect of the spring tide and of the wind was to pour a deluge over a great part of Romney Marsh; and, as the Romans, in ignorance of these natural phenomena, had drawn up their galleys on the very margin of the sea, the foaming billows burst over them, and caused incredible damage.¹ It is a singular confirmation of our hypothesis of the debarcation at Romney Marsh that the range of high water at the springs is greater here than at any other point of the southern coast. At Dungeness, for example, the mean range is twenty-one feet three quarters, while at Deal it is only sixteen feet, so that Cæsar's vessels at Romney Marsh were exposed to a rise of nearly six feet more than they would have been at Deal.²

Cæsar now brings a charge of perfidy against the Britons, viz. that seeing the small amount of his infantry, without any cavalry or supplies of corn or serviceable transports, they, in spite of the treaty which had been solemnly concluded, entered into a conspiracy for the extermination of the Romans by an assault upon their camp. But we must remember that the Commentaries are an *ex parte* statement, and written with a strong bias towards the glorification of the writer and

¹ "Eâdem nocte accidit ut esset luna plena, qui dies maritimos æstus maximos in oceano efficere consuevit, nostrisque id erat incognitum."—*B. G.* iv. 29. "κατὰ τὴν πανσέληνον."—*Strabo*, iv. 5.

² Potter's Tide Tables for 1859, p. 147.

the disparagement of the Britons. But I think it will appear, even on Cæsar's own showing, that the Britons were as much the aggrieved as the aggressive party. We read that Cæsar, before he knew the designs of the Britons — before, I say, he knew the designs of the Britons¹, — drew a conjectural conclusion from the circumstances in which he was placed that they would play him false, and proceeded to make preparation against it by cutting all the standing corn within his reach and carrying it into his camp. Now, was it not a *casus belli* that a general with whom they had just struck a treaty of peace should march his troops into their fields and annihilate the labours of the year by taking forcible possession of the crops? Appian, indeed, expressly states that the Romans had agreed by the treaty to withdraw from the island, and that the Britons advanced a charge of perfidy against the Romans for still remaining upon their shores.²

The events which occurred were these. Cæsar day after day continued cutting and carrying the corn from the vicinity³; the Britons at last could endure this no longer, and concerted the following stratagem. The only corn left was contiguous to a wood, and concluding that the Romans would next extend their depredation in this direction, they concealed there a strong body of horse and foot and charioteers, ready to sally forth at a given signal. The ambush succeeded. About a week after the storm, i.e. about the 7th

¹ "Etsi nondum eorum consilia cognoverat." — *B. G.* iv. 31.

² "Εὐθὺς ἠρέθιζον (οἱ Ῥωμαῖοι) τοὺς Βρεττανοὺς παρορκῆσαι, ἔγκλημα ἔχοντας ὅτι σπονδῶν σφίσι γενομένων ἔτι παρῆν τὸ στρατόπεδον." — *Appian*, cited *Monum. Historica Britannica*, 50.

³ "Frumentum ex agris in castra quotidie comparabat." — *B. G.* iv. 31.

of September, one of the two legions, viz. the seventh, was sent to forage as usual, and they turned their steps towards the field where the snare had been laid. No sooner had they piled their arms, and were engaged with their sickles, than the Britons rushed upon them unawares, slew some¹, and with their horse and chariots hemmed in the rest.² A desperate struggle now ensued, as the legion was surrounded and no quarter was asked on either side. By good luck the cohorts, which were on duty before the camp, and were looking idly in the direction which the legion had taken, saw a whirlwind of dust flying in the air, and immediately gave the alarm.³ Cæsar hastened off, himself, with the cohorts already under arms, and commanded the rest to follow with all expedition. He arrived just in time to save the legion. The enemy, taken in flank, at once gave ground, and the legionaries at sight of the succours took heart, and redoubled their efforts. It was a narrow escape, however; and Cæsar, by his own confession, could only bring off his men without daring to run the risk of a general engagement.

Consider here, for a moment, how apparently irreconcilable and incapable of answering to any locality are the features attending this skirmish. The camp itself was in the marsh, as is evident from its covering the triremes drawn up on shore, and from the repeated references by Cæsar and all writers to the

¹ "Paucis interfectis." — *Cæs. B. G.* iv. 32. Dion says that the Britons slew nearly the whole: "τούς τε πλὴν ὀλίγων διέφθειραν." — *Dion*, xxxix. 52.

² "Simul equitatu atque essedis circumdederant." — *B. G.* iv. 32.

³ "Ii, qui pro portis castrorum in statione erant, Cæsari renuntiaverunt pulverem majorem quam consuetudo ferret in eâ parte videri, quam in partem legio iter fecisset." — *B. G.* iv. 32.

shoals and shallows. On the other hand, a corn field adjoining a wood could not have existed on the marsh, where the corn fields are few and woods are none. Yet the scene of the combat was not far from the camp or the dust would not have been observed, and Cæsar could not have brought such ready assistance. At the same time also that the two points were little removed from each other, the dust only was seen, and not the combatants themselves. I confess that, as I passed in a boat along the coast opposite Limne, and saw no woods and no corn fields in the marsh, and a hill shutting in the plain on the north, my reflection was, How could Cæsar's camp have been here, for the ambush against the seventh legion could not have been laid in the marsh, and if on the other side of the hill, how could the dust of the fight have been visible? But on another day, when I visited Hythe by land, and walked from it to the old port of Limne and then mounted the hill, I discovered the explanation. On reaching the top I stepped at once into a corn field, dry and dusty from the lightness of the soil, and on my right was Park Wood, covering some fifty acres, besides another wood, called Fowke Wood, in the immediate neighbourhood. What I had taken from the sea for a hill was not a hill, i. e. it had no descent on the north side, but was a platform of land, and was under the plough, and corn growing so near to the edge that even the reapers, if labouring in that part of the field, might have been seen from the camp. The whole narrative was now realised to the mind's eye in the most graphic manner. The legion had marched up to the standing fields of corn on the high ground, and the Britons starting from their lurking-place at the side had intercepted their retreat, and surrounded them at just such an interval

from the edge that the combatants themselves were out of sight and hearing, but the dust flying in the air had attracted the attention of the guard standing under arms at a mile's distance below.

But to proceed. Cæsar, not feeling himself strong enough to avenge the blow which had been struck at the seventh legion, withdrew his forces behind the entrenchments of his camp, and this confession of weakness on his part gave proportional confidence to his antagonist. For many days consecutively the weather was so unpropitious that neither party ventured on any hostile movement. About the 15th September, however, the Britons, having by that time assembled a numerous body of infantry and cavalry, determined on assaulting the very camp of the Romans. Cæsar deemed it the wisest course to anticipate the conflict which he could not avoid; and, therefore, trusting to the valour and discipline of his legions in a general engagement, drew out his army in front of the camp, and awaited the approach of the enemy.

Now, perhaps, occurred the incident related by Valerius Maximus. One Scæva, and four others, had been posted by Cæsar as piquets on a solitary ait¹, which rose above the waves, and was separated from a larger island, occupied by the enemy, by a narrow strait formed by the tide at high water. The islands represented in the old maps as studding the inlet which ran up to Limne, may possibly have been the identical islands here referred to by the historian; but, of course, all is conjecture, when the configuration of this part of the coast has undergone such material changes. The

¹ Valerius Maximus calls it a *scopulus*, which probably means nothing more than an eminence. Plutarch is very emphatic in saying that the adventure was in a marsh. (*Plut. Cas. c. 16.*)

Britons being familiar with the coast, knew exactly when, by the subsidence of the flood, the intervening channel could become fordable, and as soon as it was so, they dashed into the sea and made toward the Roman guard. Four out of the five sprang into their boat and rowed to the camp; but Scæva, whether purposely or by accident, was left behind, when he hurled among the enemy his own javelins and those flung away by his comrades, and then, drawing his sword, fought hand to hand, and finally cast himself into the water and swam across to the camp.¹ Plutarch tells the same story, and lays the scene in sight of Cæsar himself, and therefore close to the camp²; and in a marsh or swamp, which, with the light afforded by the account of Valerius Maximus, must be taken to mean a lagoon subject to the alternations of the high and low tide.³

On the mainland the hostile forces met, and again the compact onset of the veteran legions prevailed. Cæsar had no cavalry, except thirty horsemen which Comius of Arras had just brought over from the Continent, and few therefore of the Britons could be slain or captured. The only revenge in the power of the Romans was to set fire to the buildings which came in their way, and many a merchant's house at Limne, and in the vicinity, was burnt to the ground.⁴

¹ Valer. Max. iii. 2, 23. The vada described by Val. Max. as caused by the flux and reflux of the tide are evidently the vada referred to by Cæsar (iv. 26).

² "Καίσαρος αὐτοῦ τὴν μάχην ἐφορῶντος." — *Plut. Cæs.* s. 16.

³ "τόπον ἐλώδη καὶ μεστὸν ὕδατος . . . ρεύματα τελματώδη . . . τὰ μὲν νηχόμενος τὰ δὲ βαδίζων." — *Plut. Cæs.* 16.

⁴ B. G. iv. 35. The camp, therefore, was not in the heart of the marsh, where frequent houses would not be found.

The position of the two parties at the present moment was this :—The Britons had once more felt the irresistible weight of a disciplined army confident in its general, and, after a defeat in the open field, they could not hope to carry the camp by assault. Cæsar, on the other hand, was in a hostile country, with a force wholly inadequate to any advance into the interior, and the season was so late, and his ships so shattered, that unless he returned shortly he might even experience some difficulty in effecting a retreat. Thus both sides were predisposed to peace, and, according to Cæsar, the Britons, on the very day of the last conflict, tendered their submission.¹ From Dion, however, we learn that negotiations were opened by the intervention of some Morini who were friends of the Britons.² Cæsar would have us believe that he carried it with a high hand, and that he required the delivery of twice the number of hostages which he had previously exacted; but it is easy to see, notwithstanding the veil attempted to be thrown over the transaction, that he wanted only a plausible pretext for transporting himself and his army back again to Gaul. He admits himself that the hostages were merely promised and not delivered at the time, and that two states only ever kept their engagement.³ There was no cession of territory, no imposition of tribute, and there is no mention of even any booty. The conclusion of a peace upon terms like these does not suggest a triumphant campaign; but rather wears

¹ “Eodem die legati ab hostibus missi ad Cæsarem de pace venerunt.” — *B. G.* iv. 36.

² “πέμπουσι γὰρ πρὸς τὸν Καίσαρα τῶν Μωρίνων τινὰς, φίλων σφίσιιν ὄντων.” — *Dion*, xxxix. 51.

³ “Eo duæ omnino civitates ex Britannia obsides miserunt; reliquæ neglexerunt.” — *B. G.* iv. 38.

the aspect of a fortunate escape from anticipated disaster.

A few days after this was a favorable wind from the north-east¹, when Cæsar set sail from Britain, a little after midnight, on his return to Gaul.² He might have chosen this otherwise unpropitious hour for two reasons. In the first place, he would be less likely to meet with any molestation from an active foe, in whose good faith he placed no great confidence; and, secondly, as Boulogne was a tidal harbour, it would be necessary to arrive there at or a little before high water. If the state of the tide was thus taken into calculation, we may form some conjecture as to the day of departure. The passage from Boulogne to Britain had occupied the ordinary transports about fifteen hours; and as Cæsar had lost twelve ships, which would render the others more crowded, the same time, if not more, would be required for the return. Weighing anchor, therefore, at twelve at night, he would reach Boulogne at 3 P. M. next day. If it was high tide at 4 P. M. the fleet at 3 P. M. would not only be able to enter the port, but also have the stream in their favour. Now, high water at Boulogne at 4 P. M. would be about 19th September, for new moon was on 14th September, when high tide at Boulogne is at 11.25; and this agrees very well with the statement of the Commentaries, that the conclusion of the armistice, which led to his departure, was a little before the equinox, computed at that time to fall on 24th September.³

The fleet crossed the Channel in safety, but two transports, missing the mouth of the port for which

¹ "Ipse idoneam tempestatem nactus."—*B. G.* iv. 36.

² "Paullo post mediam noctem naves solvit."—*B. G.* iv. 36.

³ "Propinqua die æquinoclii."—*B. G.* iv. 36.

they were bound¹, were carried to a point a little to the south-west.² The soldiers (in number 600) disembarked, and commenced their march to the camp, when they were beset by the Morini for the sake of plunder. They sent off immediately for succour, and meanwhile bravely defended themselves for the space of four hours and upwards, when they were rescued by the cavalry dispatched from the camp to their assistance.³ The next day Cæsar ordered the seventh and tenth legions, under the command of Labienus, to inflict punishment on the aggressors; and as the marshes, their usual asylum, were dried up from the excessive heat, ample vengeance was taken.⁴ These incidents are unimportant in themselves, but not so the inferences to be deduced.

In the first place, how was it that the two vessels missed the port of Boulogne at all? The explanation is a singular instance of the correspondence of the most minute circumstances when a theory is correct. The fleet were, of course, *approaching* Boulogne when the tide was *rising*, for at low water they

¹ "Eosdem portus quos reliquæ capere non potuerunt." — *B. G.* iv. 36. It will be observed that here, as elsewhere (v. 8), portus is in the plural, from which it may be inferred that Cæsar made use, not only of Boulogne, but also of Ambleteuse and Wimereux, in the same neighbourhood. Cæsar himself, however, must have sailed to Boulogne; for which port also the two vessels in question, as Cæsar himself sent relief to their crews, must have been bound.

² "Paullo infra delatæ sunt." — *B. G.* iv. 36. There cannot be a doubt that *infra* means south-west. Thus: "ad inferiorem partem insulæ quæ est proprius solis occasum." — *B. G.* iv. 28. So Ambleteuse, with reference to Boulogne, is called "portus superior." (*Ib.*)

³ "Interim nostri milites impetum hostium sustinuerunt, atque amplius horis quatuor fortissime pugnaverunt." — *B. G.* iv. 37.

⁴ "Propter siccitates paludum." — *B. G.* iv. 38.

could not enter it. Now what says the Admiralty Directory? "On approaching Boulogne at the beginning of a *rising tide*, great attention should be paid to the direction in the tables, as the streams (from the Channel to the North Sea) hereabout meet, and are turned down upon the French coast, so that *a ship, which, at the English side, would at this time have a stream setting straight up the Channel, here encounters one upon her beam, sweeping her down towards the Somme*, and hence, probably, the cause of the many disastrous losses which have occurred in this part of the Channel."¹ Here then, at once, is the solution of the difficulty which would otherwise have presented itself, viz. that, if it was high water at 4 P.M., the stream at 2.30 P.M. would begin to run east, so that a vessel at that time would be drifted, not lower down towards the Somme, but higher up towards Calais. But we here learn upon authority, that, at the very same time that on the English side the current is running east, it sets in just the opposite direction in the neighbourhood of Boulogne. The captains of the two ships in question were evidently not aware of this peculiarity, and hence their inability to reach the general rendezvous.

Again, as the legionaries fought their way through the *Morini*, it follows, as observed in a former page, that the *Morini* were settled to the south-west of the port of Itius, and, consequently, that Portus Itius could not be the estuary of the Somme, as the *Morini* did not reach so far probably as the Somme, but certainly did not extend to the west beyond it.

Further, it is not expressly said, but may fairly

¹ Potter's Tide Tables, p. 132.

be inferred from the narrative, that there was also a port into which the two vessels ran to the south-west of Portus Itius; and, as the legionaries, while on their road to the camp, fought for more than four hours before assistance arrived, this port must have been at some considerable distance. Accordingly, at thirteen miles to the south-west of Boulogne, we find the port of Etaples at the mouth of La Canche, a situation which answers to the circumstances. But should it be thought more probable that the two ships made land at some nearer point, there are also the fishing refuges of Hardelot and Camiers.¹

Again, reference is made in the narrative to extensive marshes, in which the Morini the year before had eluded pursuit, but which were now accessible from the excessive drought. I have not visited this part, and cannot speak of the nature of the country from personal observation; but I find it stated, on credible authority, that these marshes formerly extended the whole way from Neufchâtel near Boulogne to Etaples.²

In concluding the account of the first invasion, I shall add but one or two general remarks, and these so obvious that they must already have occurred to your-

¹ "Un peu plus bas de Boulogne se trouvent Hardelot, Camiers, Etaples; il y a du choix, surtout si ce port un peu plus bas était tout simplement la place sur laquelle les vaisseaux furent portés et échouèrent." — *Mariette*, p. 65.

² "Des marais, situés paulo infra comme le port de débarquement, s'étendaient autrefois depuis Neufchâtel jusqu'à Etaples et Montreuil. Ces marais étaient situés à quatre ou cinq lieues de Gesoriacum, et les soldats débarqués pouvaient combattre quatre heures avant qu'un des leurs se fut détaché pour aller porter la nouvelle à César, et que la cavalerie ait eu le temps d'arriver." — *Mariette*, p. 66.

selves. It is impossible to suppose that, when Cæsar sailed from Boulogne with 8,000 legionaries, he had the intention of merely landing in Britain and cooping up his troops within the intrenchments of his camp on the seashore. He had, no doubt, imagined that, with a well-trained army of that amount, he could subdue Britain with ease, and, in fact, had only to take possession of it. Instead of that, he found the usual ports occupied by infantry and cavalry in martial array, and was obliged to seek a place of debarcation eight miles off, and was then so resolutely opposed as to effect a landing at a great sacrifice of life. Not only did he want the courage to march into the interior, but the Britons, taking the initiative, nearly cut off the seventh legion on one occasion, and compelled Cæsar on another to give battle with all his forces, without the chance of gaining anything more by his victory than a peaceful retreat across the Channel. Cæsar, of course, tells his own story in his own favour; and we have not the British account to put in the opposite scale. But even Cæsar's excuses and apologies lead to a disclosure of the truth. "He had passed into Britain," he says, "for the purpose of collecting information as to the people, the country, the ports, and the approaches."¹ But how was even this object accomplished; for, as he never quitted his camp except for a mile or so, for the rescue of his army or to check the insolence of the enemy, he could scarcely have obtained more intelligence on the one side of the water than on the other? It must be admitted that he gained some experience as to the mettle of the inhabitants; and found, to his cost, that

¹ "Tamen magno sibi usui fore arbitrabatur, si modo insulam adisset; genus hominum perspexisset; loca, portus, aditus cognovisset." — *B. G.* iv. 20.

they were not lightly to be provoked. Unquestionably, he would not have been so much at the enemy's mercy had his cavalry not disappointed him; but a squadron of 800 horse could not have turned the scale so much in his favour as to give him possession of the country. Cæsar informs us that thirty days' thanksgiving was decreed at Rome for his exploits in Britain; but this was from the representation contained in his own despatches¹, and we are expressly told by Dion that Cæsar made the most of it.² Besides, Britain was so little known at Rome, that to have carried the Roman army thither beyond the civilised world was, in itself, regarded as no contemptible feat, not to mention that, from the state of parties at Rome, any honour in favour of Cæsar immediately became a political question. The other Roman historians are candid enough as to the failure of Cæsar's first expedition. Livy writes that Cæsar, in his first campaign, was unfortunate³; Dion remarks that he got nothing by the campaign but the barren honour of having landed in the island⁴; and it is certain that Cæsar acquired none of the usual fruits of victory,—no territory, no tribute, no booty. One fact speaks very loudly, viz. that when he returned to Gaul he left no garrison, not even a single soldier, behind him. He had been so roughly handled, that, as we should surmise, he had even no intention at this time of renewing the attempt. It was only from the

¹ B. G. iv. 38.

² "Τούτῳ γὰρ καὶ αὐτὸς ἰσχυρῶς ἐσεμνύετο."—*Dion*, xxxix. 53.

³ "In Britanniam primo parum prospere tempestatibus adversis trajecit."—*Liv. Epit.* lib. 105.

⁴ "Μηδὲν ἐκ τῆς Βρεττανίας μήτε ἑαυτῷ μήτε τῇ πόλει προσκτησάμενος, πλὴν τοῦ ἐστρατευκέναι ἐπ' αὐτοὺς δόξαι."—*Dion*, xxxix. 53. "διακενῆς τότε ἀνεχώρησε."—*Dion*, xl. 1.

taunts by which he was assailed in Gaul that he was afterwards induced to undertake a second invasion, with thrice the number of forces. It is clear that, for the rest of the year, though three months remained, he gave no orders for any preparations for the renewal of hostilities.

SECOND INVASION.

IN the following year, B.C. 54, being the consulship of L. Domitius and Ap. Claudius, Cæsar resolved on a second invasion of Britain. The excuse was that the Britons, with the exception of two states, had not sent the hostages which had been promised the year before.¹ The real motive was to retrieve the discredit of the previous failure, and to give incessant employment to his army. He was also stimulated to the enterprise by the earnest solicitations of an exiled British prince. During the first expedition a fierce war had been raging between Cassivelaun, king of the Catyeuchlani² and

¹ Cæsar. B. G. iv. 38. Dion, xl. 1.

² It is generally believed that the capital of Cassivelaun was Verulamium, and, if so, his subjects were the Catyeuchlani: “*εἶτα Καρυευχλανοί, οἱ καὶ Καπελάνοι* [qu. Καρπιλάνοι] ἐν πόλεις Σαλίνας [qu. Sulloniacæ of Anton. Itin.] Οὔρολάνιον”—*Ptol.* ii. 3, 21. Indeed Cassivelaun and Catyeuchlan are the same name, and he was so called as being the chief of the clan, as we say the Macgregor, the Chisholm, &c. This will account for there being no coins of Cassivelaun, though there are so many of Cunobelin. Most of the Belgian tribes in Britain were called after those in Gaul (*B. G.* v. 12), and the *Καρυευχλανοί* as Ptolemy calls them (ii. 3, 21), or the *Κατουελλανοί* as Dion calls them (ix. 20), were probably derived from the Catalauni, or Catelauni (*Eutrop.* ix. 13., and the *Notitia*), now known as the people of Chalons-sur-Marne, a corruption of the original name. The true designation of the clan appears to be that given by Dion, for an ancient inscription has been found in Britain CIVITATE CATVVELLANORUM T OIS DIO. (*Monum. Hist. Brit.* cxix.) They occupied Hertfordshire and Middlesex, for Cæsar says expressly that “Cassivelauni fines” were bounded on the south by the Thames (*B. G.* v. 11); and it is more natural to suppose that Cæsar means the borders of the Catyeuchlani Proper, than of the Trino-

Imanent, king of the Trinobantes¹; and Cæsar, kept at bay on the seashore by the men of Kent and Sussex, had attempted in vain to carry assistance to Imanent, his ally. The consequence was that the latter, unable by his own strength to withstand the furious onset of his powerful antagonist, had been defeated and slain; and his son Mandubert, seeking safety in flight, had taken refuge with Cæsar, and

bantes whom Cassivelaun had conquered. In the reign of Claudius, Caractacus and Togodumnus are called Κατουελλανοί, and their dominions comprised the Trinobantes eastward, and part of the Bodouni or Dobuni (Gloucestershire) westward. “Μέρος τῶν Βοδουνῶν ὧν ἐπῆρχον [Caractacus and Togodumnus] Κατουελλανοὶ ὄντες.”—*Dion*, ix. 20. The best map of Britannia Romana will be found in *Monum. Hist. Brit.*

¹ The Trinobantes were the people of Essex, and Camulodunum, or Colchester, was their capital: “Τρινόαντες ἐν οἷς πόλις Καμουδόλανον.”—*Ptol.* ii. 3, 22. They appear not to have reached westward beyond the river Lea, for Ptolemy places London (ascribed, as regards Southwark, to the Cantii) in longitude 20, and the North Foreland in longitude 22; and between these two points Colchester, the capital of the Trinobantes, in longitude 21, and Venta (Norwich), the capital of the Simeni or Iceni, as well as the opening of the estuary of the Thames, in longitude 20½; and he then speaks of the Trinobantes as to the east of the Simeni, and along the estuary of the Thames, having the Isles of Sheppey and Thanet opposite.

Λονδίον	20
Ἰάμησα εἰσχυσις [Thames estuary]	20½
Σέμενοι παρ' οἷς πόλις Οὔεντα [Norwich]	20½
Καὶ ἀνατολικώτεροι παρὰ τὴν Ἰάμησα εἰσχυσιν, Τρινόαντες ἐν οἷς πόλις Καμουδόλανον [Colchester]	21
Κάντιον ἄκρον [North Foreland]	22
Κατὰ δὲ τοὺς Τρινόαντας νῆσοι εἰσὶν αἰδε Τολίαπις [Sheppey]	23
Κῶσυννος νῆσος [Thanet]	24

It will be observed that Ptolemy, by mistake, places the islands of Sheppey and Thanet a little to the east, instead of the west, of the North Foreland.

now implored his intervention to restore him to the throne. The astute Roman at once discerned the use to be made of Mandubert's presence, and retained him in his camp with large promises of redress. The British refugee would accompany the expedition, and knowing the country would be an invaluable guide. Besides, to succour the unfortunate would be a plausible pretext for interference in British politics; and it might reasonably be expected that, when the victorious general appeared in the neighbourhood, the Trinobantes, smarting under the yoke of Cassivelaun, would break out into open rebellion in favour of their deliverer.

In the spring of the year therefore, Cæsar, the better to insure success against a most determined foe, gave directions for extensive preparations, particularly for the construction of a fleet upon a new principle. The ships were all to be flat-bottomed, and to be propelled by oars as well as sails.¹ The advantage anticipated from these deviations from the ordinary model were, that the vessels could lie in shallow water and approach closer to shore, and be easily hauled up, and the rowage would make them independent of wind and tide, which had before so much baffled him. The equipment of this armament would occupy a considerable time, especially as some of the materials were to be fetched from Spain², and the interval was to be employed in the discharge of a prefect's duty in making the circuit of the different countries within his jurisdiction, for the purpose of composing nascent

¹ "Paullo humiliores . . paullo latiores . . actuantur"—*B. G.* v. 1.
 "Ἐν μέσφ τῶν τε σφετέρων τῶν ταχειῶν, καὶ τῶν αὐτοθεν τῶν φορτάδων, ἔπως ὡς μάλιστα καὶ κουφίζωσι, καὶ πρὸς τὸ κύμα ἀντέχωσιν, ἐπὶ τε ξηροῦ ἰστάμεναι μὴ λυμάλωνται."—*Dion.* xl. 1.

² "Ea quæ sunt usui ad armandas naves ex Hispania apportari jubet."—*B. G.* v. 1.

disorders, and for the administration of justice. He first visited Cisalpine Gaul, and held the assizes there in the principal towns.¹ These may have been concluded about the end of February. He then proceeded to Illyricum, where he compelled the submission of the Procrustæ (who, taking advantage of his absence, had invaded the province), and then held the assizes for Illyricum.² The latter may have lasted till the end of April.

Cæsar usually returned from Illyricum to Gaul at the beginning of summer or about May³, and we know that he did so this year, as he tells us that on his way back he passed through Cisalpine Gaul⁴; and we learn from one of Cæsar's letters that Quintus Cicero, the brother of the orator, was with Cæsar at Laude (twenty-four miles from Placentia and sixteen from Milan) on 7th May.⁵ It was of great importance to Cæsar at this time to keep Mark Tully his friend, and with this view he offered Quintus Cicero the command of one of his legions.⁶ Both Cæsar and Quintus wrote to Cicero from Laude, and it is amusing to see how the ambitious and politic general humours the innocent vanity of the simple-minded orator. Cæsar even went so far as to commend Cicero's verses, and complimentary language could not be carried further.⁷ Both Cæsar and Quintus were at this

¹ "Conventibus Galliæ citerioris peractus."—*B. G.* v. 1.

² "Conventibus peractis."—*B. G.* v. 2.

³ "Quas legationes Cæsar, quod in Italiam Illyricumque properabat, *in ita proxima æstate* ad se reverti jubet."—*B. G.* iii. 35.

⁴ "In citeriorem Galliam revertitur."—*B. G.* v. 2.

⁵ "A. d. iv. non. Jun., quo die Romam veni, accepi tuas litteras datas Placentiæ; deinde alteras postridie, datas Laude nonis, cum Cæsar's litteris. . . . Litteræ vero ejus una datæ cum tuis."—*Cic. Ep. ad Q. Fr.* ii. 15.

⁶ *Cæs. B. G.* v. 24.

⁷ "Scribis poema ab eo nostrum probari."—*Cic. ad Q. Fr.* ii. 15.

time full of the intended expedition against Britain; and Quintus, at the instance of Cæsar, suggests that Tully should employ his pen in describing the approaching triumphs. "Give me only Britain," says Tully, in an ecstasy, "and I will paint it in your colours, but with *my brush*. But what am I saying? What leisure can I have, especially if, as Cæsar wishes, I remain at Rome? — but *we shall see*."¹ As we hear nothing of any panegyric by Cicero upon Cæsar's British campaign, we may conclude that the result did not exactly answer to the flattering picture which hope had foreshadowed.

Cæsar reached the northern coast of Gaul in the latter part of May, and on arriving found, to his infinite satisfaction, that his orders for preparations had been punctually obeyed. About 600 transports and 28 war galleys had been constructed in the different ports along the coast, and all of them either ready or capable of being launched within a few days.² Cæsar directed the vessels to rendezvous at Portus Itius, i. e. the port of Boulogne³, and in the meantime proceeded himself with the light troops and 800 cavalry against the Treviri, or people of Treves (the town on the Moselle at the junction of the Saar), who had lately shown some signs of disaffection. Cæsar was not long in quelling the disturbances in that quarter, and about midsummer, or 24th June⁴, returned to Boulogne, where he found his

¹ "Modo mihi date Britanniam; quam pingam coloribus tuis, pennis meo. Sed quid ago? quod mihi tempus, Romæ præsertim, ut ipse me rogat, manenti, vacuum ostenditur? sed videro." — *Cic. Ep. ad Q. Fr.* ii. 15.

² "Neque multum abesse ab eo, quin paucis diebus deduci possent." — *B. G.* v. 2.

³ *B. G.* v. 2.

⁴ "Ne æstatem in Trevis consumere cogetur." — *B. G.* v. 4.

army and fleet assembled, viz. 8 legions of foot, 4000 horse, 560 transports, and 28 war galleys; 40 ships, which had been built on the Seine, had, from the prevalence of the north-western gales, been prevented from reaching the port.¹ The continuance of the adverse wind from the north-west detained Cæsar at Boulogne for the next twenty-five days, or until 18th July.² At length on that day, when was the full moon, the wind shifted to the south-west³, the quarter most favourable for a passage to Britain⁴; and Cæsar gave the word for embarkation.⁵ At full moon it is high tide at Boulogne at 11.20, and we may suppose that the ships then, or a little before, began to drop down the harbour, and anchor outside, to be ready for sailing. An unexpected

¹ The motley group now collected on the banks of the Liane has been graphically described by an anonymous contributor to a popular periodical: "The *legions* of Cæsar, and all their various auxiliaries and attendants; the *Gaulish* and *German* cavalry, the *Numidian* light horsemen, the *Spanish* infantry, the *Cretan* archers, and the slingers from the *Balearic* Isles; besides the crowds of sutlers and followers, the calones and mercatores, and all the various costumes and callings connected with the naval portion of the expedition."—*H. L. L. : Gent. Mag.* vol. xxvi. (1846) p. 251. See Cæs. B. G. ii. 7.

² "Itaque dies circiter xxv, in eo loco commoratus, quod Corus ventus navigationem impediēbat, qui magnam partem omnis temporis in his locis flare consuevit."—*B. G.* v. 7. That corus or the north-west, prevents all egress from Boulogne, we have the testimony of Mariette. "Le vent Corus (N.O.) empêcherait, et a toujours empêché, de sortir du port de Gesoriacum [Boulogne]."—*Mariette*, p. 68.

³ "Leni Africo provectus."—*B. G.* v. 8.

⁴ "Le vent Africus encore aujourd'hui est le plus favorable à la traversée de Boulogne à Douvres."—*Mariette*, p. 34.

⁵ Orosius says that Cæsar sailed, "primo vere" (*Orosius*, cited *Monum. Hist. Brit.* p. lxxix.); and Dion, "ἐπειδὴ πλώϊμα ἐγένετο" (*Dion*, xl. 1): but the precise time as stated in the text cannot be questioned.

occurrence occasioned a little delay. Dumnorix, the disaffected prince of the Ædui, brother of Divitiacus, the friend of Cicero¹, and whom Cæsar had insisted on taking with him to Britain, in order to prevent his mischievous meddling at home, availed himself of the confusion of embarkation to ride fairly off with his Æduan troopers. No sooner was Cæsar apprised of it than he stopped the embarkation of his own cavalry, and despatched them in pursuit, with directions to bring back Dumnorix dead or alive. Dumnorix was overtaken, and on his resistance was slain. The cavalry of Cæsar returned to the camp, and at sunset, which would be at 8.6 P. M., Cæsar set sail for Britain, with a moderate breeze from the south-west.²

The expedition consisted of five legions (which, allowing 4,200 men to each, would give a total of 21,000 foot), and a body of 2000 cavalry; and a fleet of 28 triremes and 560 transports, besides numerous tenders, which, added to the rest, made the formidable figure of 800 sail. The transports, however, were small; for if 560 vessels carried only 21,000 troops, each of them must have been freighted with about 37 only. One of the reasons which Cæsar assigns for this substitution of small row-boats for the heavier class of vessels, which had before carried 150 each, appears not to be so well founded as most of Cæsar's conclusions. He had learnt, he says, by experience, that, from the frequent changes of the tide in the channel, there was not the same violence of the waves.³ It will be seen in the sequel that

¹ B. G. i. 19. Cic. de Divin. i. 41.

² "Solis occasu naves solvit, leni Africo provectus."—*B. G.* v. 8.

³ "Quod propter crebras commutationes æstuum minus magnos ibi fluctus fieri cognoverat."—*B. G.* v. 1

the Straits of Dover were, at all events, an overmatch for the small craft thus studiously prepared.

The light breeze from the south-west, which had wafted the fleet from Boulogne, died away as they stretched out to sea, and by midnight there was a dead calm. When the morning broke, which, as the sun rose at 4 A. M., would be about half-past three, the high cliffs between Folkestone and Dover were visible on their left.¹ The tide had been running eastward for the last six hours, and had carried them so far out of their course as to drift them beyond, or at least up to, the South Foreland. Cæsar had intended to effect his debarcation, as before, on Romney marsh, off Limne, and he was therefore quite out of the line. The tide, however, now again turned westward, and by dint of rowing, with the current in their favour, the whole fleet, transports as well as triremes, gained by 12 o'clock at noon, the familiar level shore just opposite Limne.²

So much controversy has been raised as to the place of debarcation, that I must call attention, in passing, to some material points in this account, which, if I mistake not, will prove incontestably that Cæsar must have sailed from Boulogne to Limne, and could not have

¹ "Leni Africo provectus, mediâ circiter nocte vento intermisso, cursum non tenuit, et longius delatus æstu, ortâ luce, sub sinistrâ Britanniam relictam conspexit." — *B. G.* v. 8.

² "Tum rursus æstus commutationem secutus remis contendit ut eam partem insulæ caperet qua optimum esse egressum superiore æstate cognoverat. Accessum est ad Britanniam omnibus navibus meridiano fere tempore." — *B. G.* v. 8. It has been suggested by an ingenious savant, that Cæsar did not seek the identical place where he had landed before, but another point which he had ascertained by inquiry the previous year to be more convenient. This, however, is not the natural meaning, and Dion did not so understand it. "Κατῆρέ τε οὖν ἔνθα καὶ πρότερον." — *Dion*, xl. 1.

landed at Deal; still less could have made the passage from the estuary of the Somme to Pevensey. I think no one can doubt that, when Cæsar discovered Britain on his left hand, he must have drifted through the Straits of Dover, or at least have been off the South Foreland, with the head of his vessel toward Deal. Now, this exactly agrees with the hypothesis that Cæsar set out from Boulogne, and made for the coast off Limne, but is not to be reconciled with any other theory. The captain of one of the steamers plying between Folkestone and Boulogne informed me, when I inquired some years ago what was the rate at which a vessel drifted in the channel, that the maximum drift for a single tide, i. e. for the six hours that the stream runs in the same direction, is *eighteen miles*, and the minimum nine miles.¹ The fleet of Cæsar was heavily freighted, and therefore, sinking deep into the water, would receive the full shock of the tide. Cæsar, too, was steering across the Strait, so that the broadside of

¹ Mr. Barton, of Dover, than whom I could not have a more intelligent correspondent, consulted for me an experienced pilot and also the captain of a vessel, and communicated to me the following results:—"The maximum velocity of the tide (that is, a spring tide) is about $3\frac{1}{2}$ miles an hour; the minimum (that is when it is a neap tide) is about $1\frac{3}{4}$ miles an hour. A loaded vessel would drift about 12 or 14 miles in the six hours, when the tide is at its greatest velocity, but when at the minimum not more than 6 or 7. This would also be influenced by the wind and the depth the vessel was in the water—the greater the draught, the greater the velocity." The harbour master of Folkestone, in a letter for which I have to thank him, dated December 16th, 1858, tells me "that an average vessel, broadside on, would drift two miles per hour, or perhaps more; but that of course presumes a perfect calm, as the action of the wind would materially affect the drift." The greatest velocity of the tide between Dover and Dungeness is stated in the *Tidal Tables for 1859*, p. 135, to be 3.3 knots per hour.

the vessel would be presented to the current. It is also to be remarked that the expedition was on the very day of the full moon, when, of course, it was a spring tide. The drift therefore, under these circumstances, would be the maximum, or near it. Now, if we draw a straight line from Boulogne to Limne, and then a line of sixteen miles, or thereabouts, at right angles to it up the Channel, it will take us to a point off the South Foreland¹; so that, with the head of the vessel to the north, the cliffs between Folkestone and Dover would be on the left hand. But how could this have happened had Cæsar sailed from the Somme to Pevensey — for, allowing even the maximum drift to the fleet through the night, it is quite impossible that Cæsar could have swerved so much from a line between the Somme and Pevensey as to have passed the Strait of Dover, or even to have entered it?

How, again, could he have been sailing to Deal, when, so soon as the deviation from the right course was discovered, Cæsar took the turn of the tide *back*, and *followed* the current², in order to gain his former landing-place? If he was making for Limne, this is just what he would do, i. e. having been forced by the tide to the east during the night, to a point off the South Foreland, he would in the morning, when the tide turned west, have it in his favour for a passage to Limne. But if he were sailing for Deal, so far from retracing his course, he ought still to have advanced in the same direction, and, at all events, could not be said to follow the tide when he was steering athwart it. Besides, as it must necessarily have been almost low water when

¹ A sea line from Limne to the South Foreland is by the Ordnance maps 16 miles.

² “Rursus æstus commutationem *secutus*.” — *B. G.* v. 8.

the tide turned, had he held on for Deal he would infallibly have struck on the Goodwin Sands.

I have mentioned that Cæsar sailed at the full moon on 18th July, but I have not stated upon what grounds this conclusion rests, and as it is not directly asserted in the Commentaries, you may fairly ask for the data on which it is based. In the first place, we are informed that when Cæsar, on his return from Illyricum, was amongst the Treviri, he was anxious not to consume the *summer* there¹, from which it results that it was *about* midsummer, or 24th June, and as he waited twenty-five days at Boulogne before he set sail, this would bring us to the latter half of July. But we have more direct testimony to the same effect from the letters of Cicero. I have already remarked that Q. Cicero, the orator's brother, was with Cæsar in this expedition, and as, during the whole time, a continual correspondence was maintained between Quintus and Mark, the latter would be well apprised of every movement of the expedition. Accordingly, M. Cicero, in a letter to Atticus, dated 28th July, writes thus:—"From the letters of my brother Quintus, I conjecture that he is, *by this time*, in Britain."² We are, therefore, prepared to find that the fleet, according to Cicero's expectation, sailed in the latter half of July. M. Cicero, in another letter to Quintus, acknowledges the receipt of actual intelligence of his brother's arrival in Britain³; and, as the transmission of a letter from Britain to Rome occupied about a month, the debarcation must have been

¹ "Ne æstatem in Treviris consumere cogeretur." — *B. G.* v. 4.

² "Ex Quinti fratris literis suspicor jam eum esse in Britannia." — *Ep. Att.* iv. 15, 8.

³ "O jucundas mihi tuas de Britannia literas! Timebam oceanum, timebam littus insulæ," &c. — *Cic. Ep. ad Q. Fr.* ii. 16.

about a month before the despatch of Cicero's letter to Quintus. I should fatigue you too much by going into the minutiae by which the date of the letter can be ascertained; but, suffice it to say that there are certain allusions in it to the trials of Drusus and Scaurus, which prove it to have been written in the latter half of August. The landing in Britain, therefore, must have occurred in the latter half of July. So far we ascertain the month only, but we can make a nearer approach from another circumstance incidentally mentioned. We have seen that on the morning after the embarkation at Boulogne, and soon after daylight (which in the month of July would be about 3.30 A.M.), Cæsar took the turn of the tide *westward*. Now the tide begins to run westward in the Channel at 3.30 A. M. on the day after the *full* moon, and at the same hour on the day after the *new* moon: the day of embarkation, therefore, was one of two days — viz. either the 3d July, when it was *new* moon; or 18th July, when it was *full* moon. The latter was certainly the day in question, for on the very night after the debarcation in Britain, Cæsar marched his army twelve miles into the interior¹, and he could not have done this when there was no moon, that is, in total darkness, but by the aid of the full moon no difficulty would be experienced. We may therefore infer, with the highest probability, that Cæsar sailed from Boulogne either on the very 18th July, B. C. 54, or, at all events, within a day or two either before or after it.

On reaching the shore off Limne, Cæsar expected, as in the previous year, to see the beach lined with the enemy in hostile attitude. Instead of that, not a living

¹ B. G. v. 9.

soul was to be seen. It was marvellous, but so it was. It appears that the Britons had intended to dispute the landing, and had swarmed along the coast for the purpose; but that, on descrying in the horizon 800 ships, they had despaired of success, and retired up the country. If, the year before, they had been unable to encounter eighty ships, how could they now withstand 800? The debarcation would be so extended that the Britons could not possibly cope with it at every point.¹ Cotta, indeed, who served under Cæsar in this campaign, affirms that the fleet consisted of even 1000 ships.² Besides it is certain that all the army of the Britons had not yet been collected, and the forces now in the field were chiefly, if not exclusively, the men of Kent and Sussex.

The debarcation was thus effected without obstruction, and the vessels, after having discharged their freights, were anchored in Dungeness Bay. The next thing was to fortify a camp. On the last occasion, it had been pitched on the shore, that the communication with the sea might not be cut off, and in order to afford protection to the *irremes* which had been hauled on the beach; but now Cæsar was at the head of an army which defied opposition, and, accordingly, he tells us that he selected for his camp an *appropriate* place.³ I should imagine, therefore, that the ground chosen was not, as before, on the marsh, but on the high platform overlooking it at Limne, perhaps on the site of Limne castle. Some may be of opinion that it was the camp at Shorncliffe, but this was at some distance from the place of landing, and was separated from it by an arm

¹ “Ἰπὸ τοῦ πολλαχόσε ἄμα αὐτοὺς κατασχεῖν.” — *Dion*, xl. 1.

² *Athen.* vi. 105.

³ “*Loco castris idoneo capto.*” — *B. G.* v. 9.

of the sea. The actual camp, too, was afterwards connected with the ships, which were drawn up within its defences; but, at Shorncliffe, there are no traces of any ramparts from the camp to the sea, and, indeed, the shore below the camp is not soft and open, as Cæsar describes, but is rocky and precipitous, so as to preclude the possibility of there drawing up the vessels.

Cæsar now elicited from some captives who fell into his hands by what road the enemy had retired. Canterbury was then, as at present, the capital of Kent, and the British troops had retreated in that direction. Cæsar, with his wonted activity, determined on following them at once, before their army was swelled by any accession of numbers. He, therefore, gave his troops a few hours' respite, and then, leaving Quintus Atrius, with ten cohorts and 300 horse, in command of the camp, commenced, at twelve o'clock at night, his march into the interior in quest of the enemy.

It was full moon¹, and between Limne the port, and Canterbury the capital, there was a good road; and Cæsar had Mandubert, the exiled prince of the Trinobantes, for his guide; and a night march, therefore, was easily effected. When they had accomplished twelve miles, and, therefore (as the sun rose about four), at break of day on the 20th July, the Britons were in sight. If we measure twelve miles from Limne along the road to Canterbury, it will bring us to Wye, on the southern bank of the river Stour. The Britons were posted in Challock Wood, an eminence about a mile off on the other, or north, side of the river. As many of you may not be acquainted with the locality, I will

¹ The moon rose between 7 and 8 P. M. and would set between 4 and 5 in the morning.

attempt a brief sketch of it. As you pass by the railway from Reigate to Dover, a line of chalk hills runs parallel on the left hand. At Ashford they are intersected by the valley of the Stour. The termination of the chalk range on the north of the Stour is the highest point in that part, and is, and no doubt always was, covered by a dense wood. I walked up to it from Wye, and never beheld such a sylvan rampart. No position could be more suitable to the tactics of the Britons. By felling trees and laying them lengthwise they had formed a stockade, and, as the wood was traversed in all directions by alleys or lanes, the cavalry and charioteers could issue from their covert at any moment. Besides, the eminence presented a most extensive view of the adjacent country, on the north as far as the Thames, and on the south as far as Limne, so that the Britons could watch the Roman line of march all the way from their camp. On the southern side of the Stour, the chalk hills again rise up to their former height, and the intervening valley, a little Thermopylæ, was the only practicable road for the train of an army towards Canterbury. The Britons, by thus seizing on Challock Wood, obliged the enemy either to attack them at a disadvantage, or, by passing through the gorge, to endanger the communication with their camp supplies.

Cæsar tells us that the fastness of the Britons was strong by nature and stronger by art, and suggests that the defences had been prepared long before against some domestic foe.¹ If so, we must imagine (and we can scarcely do so without a smile) that war

¹ "Locum nacti egregie et naturâ et opere munitum, quem domestici belli, ut videbatur, causâ jam ante præparaverant."—*B. G.* v. 9.

had been declared by the four kings of Kent, of whom we shall speak presently, against as many kings of the Regni, or people of Sussex. Challock Wood, then, was the great military post of the Britons; but, should you look there for the remains of walls and ditches, you will probably search in vain, for the Commentaries speak not of fortifications composed of bricks and stone, but only of a continuous sylvan barricade.¹ Dion Cassius goes more into detail, and clearly implies that there was no wall, or vallum, in the Roman fashion, but that trees had been cut and piled one upon another, so as in a certain sense only to claim the character of a rampart.²

As Cæsar with his legions approached the Stour, the Britons, who from the heights had been observing his advance, sent down their cavalry and charioteers to dispute the passage of the river, not that they could hope to prevent his crossing, but with the view of inflicting as much loss as possible. Now a river as a military defence has a double aspect. Either it is full, when the depth of water is a serious obstacle to the free movement of the troops, more particularly when encumbered with arms; or the stream is low, when the channel of the river forms a fosse, or ditch, which gives the enemy on the opposite bank the advantage of higher ground. In the month of July the beds of rivers have usually but little water, but this might not have been so here; for, when I was at Wye even later in the year, viz. in August, the Stour for some distance had the appearance of a considerable river, and was full to the brim, which was owing simply to the circum-

¹ "Crebris arboribus succisis omnes introitus erant præclusi." — *B. G.* v. 9.

² "Τά τε γὰρ περίξ ξύλα ἔκοψαν, καὶ ἕτερα ἐπ' αὐτοῖς στοιχηθὸν ἐπισυνένησαν, ὥστε ἐν χαρακώματι τρόπον τινα εἶναι." — *Dion*, xl. 2.

stance that at Wye is a mill-dam by which the water is penned back. I should rather imagine, however, that, at the time of which we are speaking, the Stour was such as I saw it below the mill-dam, viz. a broad and nearly empty channel; for it is stated in the Commentaries that, when the legions attempted the passage, the Britons encountered them from the higher ground, which I take to mean from the elevation of the bank.¹ At length the river was forced, though not with impunity², and the Britons withdrew into their defences. Cæsar now advanced upon the wood; and desultory assaults on the one side, and sallies on the other, were frequent along the line. Eventually, Cæsar's seventh legion, covering themselves with the testudo formed by holding the shield over the head, so as to present an impenetrable roof, threw up a mound against the barricade, and so scaled it³, and thus retrieved the disgrace which the Britons had inflicted upon them the preceding year in the corn field at Limne. Cæsar, however, did not follow up his victory, partly from fear of an ambush, and partly from the lateness of the hour. The next day, 21st July, the army was ordered to advance in pursuit, in three divisions. However, they had not proceeded far, and the rear-guard was still in sight, when suddenly they were recalled, from disastrous intelligence brought in hot haste from the camp.

It seems that a violent hurricane from the east had swept the sea the preceding night, and the eight hundred

¹ "Illi equitatu atque essedis ad flumen progressi, ex loco superiore nostros prohibere et prælium committere cœperunt."—*B. G.* v. 9. So, "ut ex locis superioribus in littus telum adjici posset."—*B. G.* v. 9.

² "Συχνὸς ἀνταπέκτειναν."—*Dion*, xl. 2.

³ "Testudine factâ et aggere ad munitiones adjecto."—*B. G.* v. 9.

vessels lying at anchor in Dungeness Bay had broken away from their moorings, and been dashed against each other, and most of them had been thrown upon the shore. In short, very serious damage had been sustained, and mounted messengers had been immediately sent off with the intelligence. Cæsar returned at once, and found the sad reality nothing short of the description. Forty ships were utterly lost; the rest were miserably shattered, but capable of repair. The pioneers and carpenters of the army were now set to work, and other artisans were sent for from the Continent; and Labienus, who had been left in Gaul, was ordered to employ the legions which were with him in laying down and completing as many new vessels as possible.

To prevent the recurrence of such another disaster, Cæsar determined, though it was an undertaking of Herculean labour, to haul up the whole of his fleet on dry land, and secure them against any assault from the enemy, by placing them within the defences of the camp. The legionaries, 21,000 in number, were engaged upon this arduous task for ten days and ten nights, i. e. until the 31st July, without intermission.¹

If Cæsar's camp was pitched, as is likely, on the table-land overlooking the marsh near Limne, in short, on the site where Limne castle now stands, we should look for the naval defences immediately contiguous; and if we walk down the slope from the castle to the marsh, we come upon a very remarkable ruin called Stuttfall, a name said to be composed of the two Saxon words *stoute wall*, or strong fort. Others derive it from

¹ " Ipse, etsi res erat multæ operæ ac laboris, tamen commodissimum esse statuit omnes naves subduci, et cum castris unâ munitione conjungi. In his rebus circiter dies x consumit, ne nocturnis quidem temporibus ad laborem militum intermissis." — *B. G.* v. 11.

two Saxon words signifying a "fallen place;" and others from *stæd-weall*, sea shore. That Stutfall was erected by Cæsar I will not take upon myself to affirm, but in many respects it answers most singularly to the character of the naval *castrum* now constructed. Stutfall is certainly a Roman work, as is evident from the layers of Roman tiles. The walls are of amazing thickness, and enclose, it is said, no less a space than ten or twelve¹ acres of ground. Cæsar might, therefore, well describe it as *castra egregie munita*, a camp wonderfully strong.² I have examined it very closely, and the first observation that occurs to one is, How could a military fortress have been pitched on the side of the hill, and not on the summit? There must certainly have been some other than a mere military object in view. The castle above shows that the builders knew where a fortress should be placed. The wonder is increased when we remark the broken ramparts on the north, and east, and west sides of the square, and look in vain on the south, at the foot of the descent, for any trace of a fortification. Indeed, in this direction, the area is perfectly open. The explanation of this is as follows:— In ancient times the sea, as is proved incontestably by the fragments of ships and anchors which have been dug up, flowed up to the very base of the hill, and formed there the port of Limne. Stutfall, therefore, was built for the protection of the shipping; so that, naturally enough, the site was not like the castle on the summit, but on the slope toward the foot. The fourth or southern side of the square, being washed by the waves, needed no artificial defence. Cæsar then might

¹ 10 acres (*Lambarde's Peramb.* 184); 12 acres (*Stukeley's Itin.* 123).

² B. G. v. 11.

have brought his vessels up the creek of Limne, and have drawn them on shore beneath his camp, and then have surrounded them by this strong massive rampart. It is also observable that the wall is built in many places as if in a hurry, from materials supplied by other more ancient buildings.

It will be objected, perhaps, that a wall of such prodigious strength, round a space of ten or twelve acres, could not possibly have been completed in ten days; but we must remember that 21,000 legionaries and 2000 cavalry were employed upon it day and night, and not only so, but workmen also were brought over from Gaul. Besides, it is not said that it was *completed* in ten days, but only that it was in such a state of forwardness by that time that Cæsar could with safety leave ten cohorts and 300 horse there, and return himself in search of the enemy. The work may have been brought to perfection in a much longer period by the troops which remained in garrison.

If it be thought a difficulty that a numerous fleet should have been dragged up an ascent like that at Stutfall, let it be remembered that the year before, their fleet, when resting on the sea beach, had been swamped by the spring tide; and Cæsar, anxious to prevent any similar accident, had since constructed his ships of so little bulk (carrying each a freight of 37 men only), that they could all be drawn on land with the greatest ease. Stutfall, from its gentle elevation above the sea level, would therefore be exactly the place where we might expect that the fleet would be secured.

If it be said that even ten or twelve acres of ground, though a large space, would not suffice for 560 ships, to say nothing of the 240 tenders, we reply that the rest

might have been drawn up on the marsh immediately below, for mounds of earth like remains of fortifications are still to be seen there ; and, as on the marsh advantage would be taken of wet ditches, the same strength of walls would not be required as on the slope, where the ramparts themselves were the only protection.

It must be confessed that the coins found at Stuttfall are those only of the Roman emperors from Antoninus Pius to Valens¹; but this does not prove that Stuttfall was not a Roman station in the time of Cæsar, for his sojourn in Britain was very brief, about two months only, and for a hundred years after him the Romans never set foot upon the island. Even if the identical walls which remain were not reared by Cæsar, it is still open to conjecture that his naval camp was on this spot, and that the Romans of an after-age adopted his plan, and built the present gigantic rampart in the place of a more hasty circumvallation thrown up by the great captain.

It was while Cæsar and his army were detained by the seaside that Q. Cicero took the opportunity of announcing his arrival in Britain to M. Tully. The feelings which the letter excited in the breast of the accomplished orator are as full of nature as they are replete with vanity. "Now," he says, in his answer to Quintus, "I come last to that which should, perhaps, have stood first ! O that delightful letter of yours from Britain ! I had been so fearful of the ocean, so fearful of the coasts of the island ! I do not speak slightingly of all the rest, but the rest carries more of hope than of fear, and I am rather upon the tiptoe of expectation than under serious alarm. But I see that you have a

¹ Roach Smith's *Antiq. of Richbor and Limne*.

brave subject for composition. What sites! what descriptions of places and things! what manners! what nations! what battles! and, above all, what a commander-in-chief!! I will gladly assist you, as you asked me, in what you wish. I will forward you the verses you desire, *γλαῦκ' εἰς Ἀθήνας*. But, I say, you seem to have forgotten *me!* For, tell me, my brother, *what thought Cæsar of my verses?* for he wrote me word before, that he had read the first book, and that, taking the commencement as a sample, he had never read anything finer, not even of the Greeks. The rest he had reserved till he was more at leisure (*ῥαθυμότερα*): for I use his very word. But tell me candidly whether either the subject or the style fails to please. No need to fear, for I shall not think a whit the worse of myself. Out with it, and write like a true brother as you are.”¹

Cæsar now (about August) put himself again at the head of his legions, to recover the position which such unwelcome tidings from the fleet had constrained him to abandon. During the interval which had elapsed the British cause had prospered, and now assumed a very different aspect. We have seen that Cassivelaun, king of the Catyeuchlani (Hertfordshire and Middlesex), had triumphed in the war against Imanuent, king of the Trinobantes (Essex), had slain Imanuent, driven out his son Mandubert, and possessed himself of the

¹ Cic. Ep. ad Q. Fr. ii. 16.

² B. G. v. 20. The name of Mandubert appears to be derived from “Man” in its modern sense, for it is translated by the word Andro-gorius (*Oros.* cited *Mon. Hist. Brit.* p. lxxix.), or Androgorius (*Bede*, cited *ib.* 110), evidently derived from *ἀνὴρ*, a man. The same word also entered into the name of his father I-man-uent. One is almost tempted to interpret Imanuentius, the man of Venta or Norwich; and Mandubratius, the man of Dover (i. e. Dover Court) or Harwich.

kingdom of the vanquished. Cassivelaun's territory was now bounded by the Thames to the south, and by the ocean to the east. According to Cæsar, it was divided from the maritime states by the Thames, at the distance of about eighty miles from the sea.¹ This is interpreted by some to mean that Cassivelaun's borders began at the distance of eighty miles from the *mouth* of the Thames, but surely the more natural signification is simply that the Thames, which was the boundary line to the south, was eighty miles from the Kentish coast; and, if we measure from Limne, where Cæsar landed, to the point where he is said to have forded the river, the distance would be about eighty Roman miles.

This aggrandisement of Cassivelaun was, of course, regarded by the states to the south of the Thames with no little jealousy; and it was only on hearing of the enormous preparations which the Romans were making in Gaul, that, feeling themselves utterly incapable of meeting the storm alone, they had dropped under the pressure of the moment all minor considerations, and required the aid of Cassivelaun, and constituted him the generalissimo of their united forces. The rapidity of Cæsar's movements had taken the troops of the southern by surprise, and Cæsar, but for the necessity of returning to the fleet, might, by following up the blow struck at Challock Wood, have prevented the junction of the reinforcements from the north. But, during the ten days which were spent at the seaside, Cassivelaun with his auxiliaries had arrived at the British camp,

¹ "Cujus fines a maritimis civitatibus flumen dividit, quod appellatur Tamesis, a mari circiter millia passuum LXXX."—*B. G.* v. 11. Eighty miles Roman would be seventy-three miles and a fraction English.

and the assembled troops were now at least double the former number. The charioteers alone amounted to upwards of 4,000.¹

As Cæsar advanced from Limne, the British cavalry and charioteers were sent forward to harass the enemy during their march.² From the naval camp to Wye was one continual skirmish between the mounted troops of the two armies. Many fell on both sides, without any material advantage. The Romans could always retire upon their legions; and the Britons could always take refuge in their woods. The flight of the latter, however, was not uncommonly a feint to draw away the Roman cavalry to a distance from the legionaries, when the Britons would suddenly wheel about, and seldom failed to give proofs of their superiority.

Notwithstanding these desperate encounters, Cæsar's legions continued steadily to press forward in the direction of Wye. At the close of the day they halted, and proceeded to mark out the camp for the night. Two cohorts kept guard while the camp was being intrenched, when the Britons all at once issued from their woods, and drove the two cohorts before them. Cæsar immediately ordered up two other cohorts to their support, but such was the impetuosity of the British charge that the two auxiliary cohorts were broken, and the Britons cut their way through, and then brought themselves off in safety, in defiance of every obstacle. Q. Laberius Durus, a military tribune, was one of their victims.³ The matter was now growing serious, and Cæsar, to prevent further loss, was obliged to bring up the best part of his army, when the Britons were repulsed. On the southern

¹ B. G. v. 19.

² "Ἐς αὐτὸ τὸ νεώριον σφῶν ἄρμησαν." — *Dion*, xl. 2.

³ B. G. v. 15.

bank of the Stour, a little to the east of Wye, and opposite Chilham, is a tumulus called "Julliber's Grave," and tradition says that it takes its name from Julius's tribune Laberius, who fell on this day, and was here buried. The locality agrees well, and, had the name of the tribune been Julius Laberius, the similarity of sound in Julliber, as an abbreviation of Julius Laberius, would have been at least a curious coincidence. Unfortunately the prænomen was Quintus, so that the antiquary is obliged to borrow the name of Julius from Cæsar himself. Of course I attach no importance to the popular belief, though there is nothing unreasonable or absurd on the face of it.

The next day (which would be about 2nd August) the Britons showed themselves at intervals on the hills, but neither Britons nor Romans seemed disposed to renew the conflict. At length, about noon¹, Cæsar was under the necessity of dispatching a foraging expedition; and he showed his respect for the foe by the force which he employed. He had brought from Gaul five legions and 2,000 horse. One legion and 300 horse had been left in charge of the naval camp², and he had with him four legions and 1,700 horse. He now retained a single legion within the intrenchments, and ordered C. Trebonius, one of his ablest officers, with three legions, more than 12,000 men, and the whole of the cavalry, to search the country for plunder. While the foragers were engaged upon their nefarious occupation, the Britons suddenly started from their hiding places and commenced a desperate attack, even grasping at the standards. C. Trebonius answered well to the high trust reposed in him, for his troops were

¹ "Meridie." — *B. G.* v. 17.

² *B. G.* v. 9, 11.

instantly under arms and in order, and not only sustained the onset, but drove the enemy back; and the cavalry so well followed up the blow that the Britons could not recover themselves, and a decisive victory was gained. This fatal encounter may have taken place at Chilham, which lies a little to the east of Wye, but on the opposite side of the river, and is said to be a corruption of Julham, or Julius's (i. e. Cæsar's) Town.¹ I should add that Cæsar's veracity as to his success has been questioned by the Romans themselves; for Dion states explicitly that the battle was a drawn one.²

Cassivelaun was convinced that his troops, most of them probably raw recruits, however obstinate their valour, could not resist the serried legions of Rome in a pitched battle. From this time, therefore, his tactics were changed. The army was broken up into different bodies, so as to distract the attention of the enemy and cut off stragglers and harass his movements, but never to offer a general engagement.³

It was about this period that Q. Cicero again wrote to his brother, and it would seem that the tone of it was not very encouraging, for M. Tully, in answer, writes merely, "Concerning affairs in Britain, I collect

¹ Many places have been similarly derived, as Julium, Julii Forum, and the Julian Alps; but Chilham from Julham seems somewhat apocryphal. If Chilham be derived from Julius, probably Challock Wood is also, for Chilham and Challock evidently contain the same element.

² "Κατὰ χώραν ἀμφοτέρωι ἔμειναν."—*Dion*, xl. 3. As to Cæsar's veracity generally, see *Suet. Jul.* 56.

³ "Ex hac fuga protinus, quæ undique convenerant auxilia discesserunt; neque post id tempus unquam summis nobiscum copiis hostes contenderunt."—*B. G.* v. 17.

from your letter that there is no ground for fear and none for congratulation.”¹

Cassivelaun, in execution of his well-concerted plan, now withdrew, at the head of his own proper army, in the direction of his hereditary dominions on the north of the Thames. The active Roman commander would not be far behind him, and we may imagine that on each day the post which Cassivelaun quitted in the morning was occupied by his pursuer in the evening. If, as is likely, there was at that time no bridge over the Thames in the neighbourhood of London, it would be necessary to seek the first ford higher up the stream.² All is conjecture, but it may be suggested that Cassivelaun retired, followed by his antagonist, from the banks of the Stour along the southern side of the chalk hills running from Wye to Dorking, and then down the left bank of the Mole to the nearest point of the Thames, which would be at Walton.³ The common opinion is that the armies crossed the Thames at Coway Stakes, a little above Walton and below Weybridge, at Shepperton, where is the village of Halliford, so named from the ford.

Cassivelaun had no sooner placed the river be-

¹ “De Britannicis rebus cognovi ex tuis litteris nihil esse, nec quod metuamus, nec quod gaudeamus.” — *Ep. ad Q. Fr.* iii. 1.

² About a hundred years afterwards there was a bridge, apparently not far from London. *Dion*, lx. 20.

³ Others think that he marched by the most frequented road in the direction of London. It appears from *Anton. Itin.* that there were afterwards two roads from Limne to London, one direct, thus:—

Londinio

Durobrivis (Rochester)	.	.	.	.	xxvii
Duroverno (Canterbury)	.	.	.	.	xxv
Ad Portum Lemanis (Limne)	.	.	.	.	xvi

tween himself and his pursuer than he fenced the northern bank with *chevaux-de-frise* of sharp stakes, some of them in the bed of the river¹, for the purpose of checking, if not of preventing, the advance of the enemy. At the distance of a mile and a half to the south of Coway Stakes is an eminence overlooking the ford, called St. George's Hill, and here Cæsar may have pitched his camp, for there are still the remains of a Roman *castrum* on the crown, double-trenched, and containing more than thirteen acres², and called traditionally Cæsar's camp. The very name, also, of Walton is said to be derived from the *vallum*, or wall, here constructed. The two hostile armies had not long confronted one another on the opposite banks when Cæsar gave orders, notwithstanding the obstacles, to force the ford. The horse took the lead, closely followed by the foot, and both horse and foot dashed into the stream and advanced upon the enemy with such impetuosity, though the legions were up to their necks in water³, that the Britons, who were lightly armed, could not sustain the weight of the charge, and fled in confu-

the other circuitous—

Londinio

Noviomago (Croydon)	X
Vagniacis (Maidstone)	XVIII
Durobrivis (Rochester)	IX
Durolevo (Milton or Faversham)	XIII
Duroverno (Canterbury)	XII
Ad Portum Lemanis (Limne)	XVI

78.

¹ "Ripa autem erat acutis sudibus præfixis munita; ejusdemque generis sub aquâ defixæ flumine tegebantur."—*B. G.* v. 18.

² "13 a. 3 r."—*Manning's Surrey*, vol. ii.

³ "Cum capite solo ex aquâ extarent."—*B. G.* v. 18.

sion. Such, at least, is the narrative of Cæsar, though it does not very well accord with the resolute front shown by the Britons on other occasions. Polyænus would attribute Cæsar's success to the presence of an elephant, an animal wholly unknown to the natives, and presenting, from its stupendous size, a supernatural appearance.¹ It is scarcely credible, however, that Cæsar should have possessed an elephant in Gaul, and still less so, if he did, that he should not have mentioned it.

The passage of the Thames, so little disputed at the time between the two hosts, has since been most warmly contested amongst historians and antiquarians. Some will have it that Cæsar crossed the river at Westminster, where, in a dry summer, the river is fordable²; others, as Maitland, at Chelsea³; others, as Lemon, at

¹ “Καῖσαρ ἐν Βρεττανίᾳ ποταμὸν μέγαν ἐπεχείρει περαιοῦσθαι. Βασιλεὺς Βρεττανῶν Κασόλαννος ἀνεῖργε μετὰ πολλῶν ἱππέων καὶ ἀρμάτων. Καίσαρι μέγιστος ἐλέφας εἶπετο, ζῶον Βρεττανοῖς οὐχ ἔωραμένον. Τοῦτον σιδηραῖς φολίσιν ὄχυρώσας καὶ πύργον ἐπ’ αὐτοῦ μέγαν ὑψώσας, καὶ τοξότας καὶ σφενδονήτας ἐπιστήσας, ἐκέλευσεν ἐπὶ τὸ ρεῦμα ἐμβαίνειν· Βρεττανοὶ δὲ ἐξεπλάγησαν ἀόρατον καὶ ὑπερφυῆς θηρίον ἰδόντες. Βρεττανοὶ μὲν δὴ αὐτοῖς ἴπποις καὶ ἀρμασιν ἔφευγον, Ῥωμαῖοι δὲ ἀκινδύνως τὸν ποταμὸν διέβησαν ἐνὶ ζῳῇ τοὺς πολεμίους φοβήσαντες.”—*Polyæn. Stratag.* vi. It is said that Claudius also, in A. D. 43, took elephants with him to Britain. *Dion*, lx. 21.

² “Even now, in similar seasons (two dry summers consecutively), the river is fordable at Westminster, as it was on the 19th of this very month, July, 1846.”—*H. L. L.: Gent. Mag.* vol. xxvi. (1846) p. 256.

³ “Sounding the river at several neap tides, from Wandsworth to London Bridge, I discovered a ford (on Sept. 18, 1732) about 90 feet west of the S.W. angle of Chelsea College garden, whose channel, in a right line from N.E. to S.W., was no more than 4 feet 7 inches deep, where the day before (it blowing hard from the west) my waterman informed me that the water there was above a foot

the Earl of Dysart's grounds at Petersham, opposite Twickenham¹; others, as Horsley, at Kingston²; others, as Bishop Kennett, at Wallingford³; and others, as Daines Barrington⁴, are certain that Cæsar never passed the Thames at all, but only the Medway, called by Cæsar the Thames by mistake. It may not, perhaps, be uninteresting if I trace this learned controversy from the commencement.

The tradition that Cæsar forded the Thames at Coway Stakes is as old as Bede, for he says, "The footsteps thereof are seen to this day, and it appears upon the view that each of them (i. e. the stakes) is as thick as a man's thigh, and that, being wrapped in *lead*, they are fastened in the bed of the river immovably."⁵ No place is here mentioned by name, but, as it has never been suggested that stakes were to be found elsewhere in the Thames, no doubt Coway Stakes is the spot alluded to.

The learned Camden is very positive upon the subject, not to say a little egotistical: "It is impossible (he writes in 1607) I should be mistaken in the places, because here the river is *scarce six feet deep*, and the place at this day from those stakes is called Coway Stakes. To which we may add that Cæsar makes the bounds of Cassivelaun, where he fixes his passage, to

lower; and it is probable that at such tides, before the course of the river was obstructed either by banks or bridge, it must have been considerably shallower." — *Maitland's London*, p. 8.

¹ Manning's Surrey, vol. ii. p. 760.

² Horsley's Britain.

³ Archæolog. ii. 145.

⁴ Ib. ii.

⁵ "Quarum vestigia sudium ibidem usque hodie visuntur, et videtur inspectantibus quod singulæ earum, ad modum humani femoris grossæ et circumfusæ plumbo, immobiliter erant in profundum fluminis infixæ." — *Bed. Ecc. Hist.* i. 2.

be about eighty miles distant from the sea which washes the east part of Kent, where he landed. Now this ford we speak of is at the same distance from the sea, and *I am the first that I know of who has mentioned and settled it in its proper place.*"¹

Samuel Gale, in 1734, read a paper before the Society of Antiquaries², in which he subscribed to Camden's opinion, and gives us some description of the stakes at that time—that the stakes, from their antiquity, resembled *ebony*, and would admit a polish, and were not the least rotted; that they were young *oak trees*³, and no mark of any tool, and the thickness of a man's thigh; "but whether," he says, "they were covered with *lead* at the ends fixed in the bottom of the river is a particular I could not learn." And he adds in a note, "Since writing of this, one of these stakes entire was actually weighed up between two loaded barges at the time of a great flood by the late Rev. — Clark, jun., of Long Ditton."

However, in 1769, the Hon. Daines Barrington appeared in opposition before the same Society⁴, and asserted that the Coway Stakes were nothing more than the remains of a fishing-weir, for that a fisherman of Shepperton, who had been employed by some gentlemen to take up the stakes, had conducted him (Daines Barrington), at his desire, to the place, when he found, from the explanation of the said fisherman,

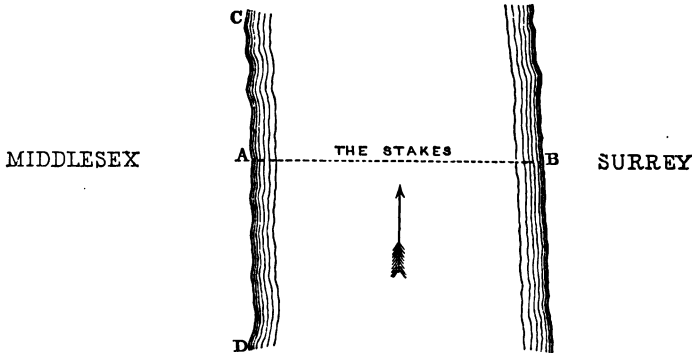
¹ Camd. Brit. vol. i. p. 183.

² Archæolog. i. p. 184.

³ "I have been informed that the stakes at Coway were very thick pieces of *yew tree*." — *W. Stukeley: Gent. Mag.* vol. lxxvii. (1797) p. 198. "The piles," according to another account, "were of *chestnut wood*." — *Gent. Mag.* vol. lix. (1787) p. 222.

⁴ Archæolog. ii. p. 141.

that the stakes were not along the northern bank of the river, but athwart the stream, thus :—

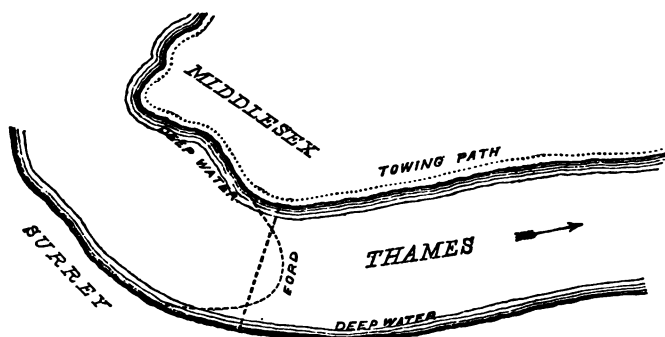


Whereas, to prevent the passage of an army, the stakes should have been planted longitudinally, from c to d. He also draws an argument from Camden's own statement, that the river there was scarce six feet deep, for, says he, "to permit infantry to cross by fording with their heads above water, the depth should not be more than four and a half feet."

On the other hand, a writer under the name of Clio, in the "Gentleman's Magazine" (vol. lix. A.D. 1787, p. 222), would cut the matter short by positive testimony that the passage was at Coway Stakes, for, "upon the rebuilding of Walton Bridge," he says, "two years ago, they found several very valuable articles, among the rest a perfect spear with the name of *Julius Cæsar* indented legibly in Roman characters!" The maker's name is not mentioned, but Birmingham is a very ancient town, and the Birmingham trade-mark might, no doubt, upon minute inspection, have been discovered!!

In the second volume of Manning's "Surrey," published

in 1809¹, and edited by Mr. Bray, the cause of Coway Stakes finds another zealous defender. As to the position of Barrington that the stakes were a fishing-weir, it is there asked by the writer (and, I must say, not without reason), why a weir of such strength should be found only in this part of the river, and nothing similar elsewhere? Then, as to the objection urged by Barrington, that the stakes stretched across the river, and so would not prevent a passage, a Mr. Crawter, who knew well the neighbourhood of Walton and the river, is called as a witness, and deposes that the ford was in a curve, and that the stakes cut the curve in two places, so that no one, as the stakes were fixed, could use the ford, as may be seen by the following sketch:—



It is added, in confirmation of this being the ford in question, that *spurs* and fragments of spears, &c., had been dug up at different times in a field called Warclose², in the parish of Shepperton; but, before we

¹ Page 759.

² D. Barrington would probably suggest that "war-close" is a corruption of "weir-close."

admit the argument from the spurs, it must be proved, which may be a matter of difficulty, that *the Romans wore spurs!*

We have in this history the best account of the stakes themselves; and the nature of them may lead us farther on the road to truth. It is said that "one Simmons, a fisherman, who had lived there, and known the river all his life, told the editor (Mr. Bray) in 1807, that at the place called Coway Stakes he had weighed up several stakes of the size of his thigh, about six feet long, *shod with iron*, the wood very black, and so hard as to turn an axe. Their boats sometimes ran against them. The late Earl of Sandwich used to come to Shepperton to fish, and gave him half a guinea a-piece for some of them. There were none in any other part of the river that he ever heard of. One now remained in the river, which they were not able to weigh. It was visible when the water was clear. His net had been caught and torn by it. His tradition was that they *formed part of a bridge built by Julius Cæsar*, and he described them to have *stood in two rows, as if going across the river, about nine feet asunder as the water runs, and about four feet asunder as crossing the river.*"

I believe that this poor fisherman of Shepperton has shown more good sense than all the antiquaries, and that he has hit upon the right solution of the stakes, viz. that they were the piles of an ancient bridge. How could stakes in two rows nine feet asunder one way, viz. in the course of the stream, and four feet another, viz. across the stream, be intended as a barricade against an enemy, when a foot soldier, not to say a trooper, could pass through them in every direction? How, again, is it credible that the stakes, which must have

been prepared in a hurry, should have been shod with iron in a systematic way, as in times of peace, for the foundations of a bridge? It does not follow, however, that, because there had been a bridge, Cæsar did not here ford the river; on the contrary, the circumstance rather favours the supposition that he did. Assuming a bridge to have existed there in the time of Cæsar, Cassivelaun would naturally retreat over it with his army, and then break it down and saw off the tops of the piles. The stakes which were driven by Cassivelaun himself must have been *along the side of the northern bank*. Cæsar nowhere hints that they were *across the river*. Who can say that Cæsar did not himself construct the bridge? for he was proud of his mechanical skill, as is evident from his detailed account of the bridge thrown by him over the Rhine the preceding year.¹ This, also, would account for the strong camp on St. George's Hill, viz. to protect the bridge, for the purpose of covering his retreat, should he find the enemy too strong for his daily-diminishing force. As for Daines Barrington's argument that because the water here was nearly six feet, it was, therefore, too deep to allow the Roman infantry to ford, the answer is that the depth of the stream depends upon the season; and we know from the Commentaries that, in fact, the year B. C. 54 was an extraordinarily dry one², so that the river in the month of August, when Cæsar was there, may easily be conceived to have been a foot and a half lower than it usually is at the same period under ordinary circumstances.³

¹ B. G. iv. 17.

² "Propter siccitates." — B. G. v. 24.

³ Stow mentions a curious fact: "The river," he says, "has several times been blown almost dry, so that one on shore could not see any water in it from London Bridge to Westminster, particularly

It is not to be forgotten that Coway Stakes agrees with Cæsar's description in several curious particulars. In the first place, as the Thames is a tidal river up to Teddington (Tide-end-town), and as Cæsar, who is a most accurate observer of natural phenomena, makes no allusion to high or low water¹ when he was almost necessarily led to it in speaking of the depth of the stream and the stakes driven into its bed, we may reasonably infer that the passage of the river was at least above the point to which the ebb and flow of the tide extends. Again, at the point of passage the river was fordable, *uno omnino loco*, in only one place; and, further, it was at the distance of eighty Roman miles from Limne, the place of debarcation,—both which circumstances concur at Coway Stakes. We may also add that, while the river has in many places shifted its channel, we may be sure that there has been a shallow here for more than eleven centuries at least, as the stakes are referred to by the Venerable Bede.

We may close the discussion with an extract from Brayley's "History of Surrey," who gives the latest account of the ford. "Between Walton Bridge," he says, "and Halliford, in Shepperton parish, the river flows in a semicircular course of great extent, and includes a large tract of low meadows within the bend. It was here that Coway Ford crossed the stream in a

on Sept. 5, 1592, and again on Sept. 14, 1716; of the last I was an eyewitness. Thousands of people passed over it on foot." — *Stow's London*, p. 16.

¹ The phenomenon of a tidal river would be particularly striking to an Italian, and accordingly Pomponius Mela remarks: "Flumina alternis motibus modo in pelagus modo retro fluentia." — *Mela*, iii. 6.

circuitous direction downward, and, within memory, it has been traced by persons wading through the current when the waters were low. Within the last thirty or forty years, however, the bed, or channel, of the river has been much deepened in this part, under the superintendence of the City authorities, in order to improve the navigation, in consequence of which all remains of the ford have been destroyed, and every trace of Coway Stakes obliterated."¹

Should any one happen to be at Walton or Weybridge, and desire to see the exact spot where these famous stakes formerly stood, he will find it at the distance of a furlong to the west of the northern end of Walton Bridge.²

Cæsar was now on the northern bank of the Thames, and, as the British army had been dispersed, with the exception of 4000 charioteers, Cæsar, with Mandubert, the exiled king of the Trinobantes, who was still in his camp, marched in the direction of the Trinobantes. It was hoped that, on the Roman approach, they would at once throw off their forced allegiance to Cassivelaun, and welcome back Mandubert as their king, and Cæsar as his ally. Cassivelaun meanwhile, at the head of his 4000 charioteers, watched from day to day the Roman line of march; and, when he was least expected, sallied forth from the woods and fell upon their rear or intercepted their stragglers. Cassivelaun also showed his generalship by the adoption of the course which was to have been practised had Napoleon the Great ever thrown himself upon the British shore. By whatever route Cæsar moved the country was depopu-

¹ Brayley's Hist. of Surr. vol. ii. p. 344.

² Lyson's Environs of London, article "Shepperton."

lated; stores were carried off, and the cattle driven into the woods.¹ The Roman cavalry were therefore obliged in foraging to range to a great distance, but no sooner did they part from the legions than the charioteers, who were superior in number, started from their hiding-places, and seldom failed to cut some of them off. The upshot was, that, if the cavalry went out to forage, they returned in diminished numbers, and if they remained with the legions the army wanted supplies. The latter alternative was thought the less evil, and Cæsar issued a peremptory order that the cavalry should on no pretence quit the protection of the legions.² Cæsar is reluctant to confess it, but it is evident from this that his cavalry were beaten by the British charioteers. Indeed, the very name of *essedum* or war-car now became a bugbear to the Roman troops; and Cicero, in writing about this time to Trebatius, a young juriconsult, who, having failed at the bar, had been recommended by the orator to Cæsar's notice (but without much effect), playfully alludes to it by saying: "I hear that in Britain is neither silver nor gold, and if so, let me advise you to capture one of the *essedæ*, and return as fast as you can."³ And again: "You, whose profession is to cater for others, see that in Britain you be not caught yourself by the *essedarii*."⁴ These letters assumed that Trebatius was in Britain, whither he had

¹ "Pecora atque homines ex agris in sylvas compellebat."—*B. G.* v. 19.

² "Relinquebatur ut neque longius ab agmine legionum discedi Cæsar pateretur," &c.—*B. G.* v. 19.

³ "Id si ita est, *essedum* aliquod suadeo capias, et ad nos quam primum recurras."—*Cic. Ep. Div.* vii. 7.

⁴ "Tu qui cæteris cavere didicisti, in Britannia ne ab *Essedariis* decipiariis caveto."—*Ep. Div.* vii. 6.

intended going; but, in fact, on nearing the ocean, he had lost heart and remained in Gaul; and Cicero, when he heard of it, again banter him good-humouredly about the *essedarii*. "Had you gone to Britain," he says, "you would have been the best lawyer in all the island! But (to have my joke, as you invite me) you seem in the camp to be much less forward than in the forum. You, who were so fond of swimming, had you no stomach for swimming on the ocean? You who were so cunning of fence, could you not face the *essedarii*?"¹ Cæsar himself also about this time wrote to Cicero, but could not boast of any decisive advantage, observing merely in general terms that matters in Britain went on favourably enough. The letter was dated the 1st of September, B. C. 54.²

The wise policy of Cassivelaun was now beginning to bear its fruits, and Cæsar was already reduced to great straits in his commissariat, when the Trinobantes, now that Cæsar with his legions was in the vicinity, broke out, as had been anticipated, in open rebellion against Cassivelaun, and sent an embassy to Cæsar with an offer of submission, if he would place Mandubert on the throne and guarantee them security against the arms of their oppressor. Cæsar snatched at the opportunity of rescuing his army from their present distress, and stipulated only that hostages should be given to secure good faith, and, what was of primary importance, that they should im-

¹ Cic. Ep. Div. vii. 10. So: "Sin æstivorum timor te debilitat aliquod excogita, ut fecisti de Britannia."—vii. 14. "Quod in Britannia non nimis φιλοθέωρον te præbuidisti plane non reprehendo."—vii. 16. "In Britanniam te profectum non esse gaudeo, quod et labore caruisti, et ego te de rebus illis non audiam."—vii. 17.

² Cic. Ep. ad Quint. Fr. iii. 1.

mediately furnish him with a supply of corn.¹ Mandubert returned with the Trinobantian envoys, and the hostages and supplies were despatched to the camp with all haste.

The Roman general turned this incident to the very best account. The Trinobantes were now his friends, and their houses and crops were spared, and the soldiery were strictly prohibited from offering the least violence within the dominions of Mandubert.² As a contrast to this, all the adjacent parts, where the population was still hostile, were a smoking desert. First, Cassivelaun, in the execution of his well-laid plan, devastated the country in the line of the enemy's march, and then what little was left by Cassivelaun was sacked or destroyed by the legions of Cæsar. The comparison was soon drawn, that the Trinobantes, who had accepted terms, were living under the king of their choice safe and unmolested, while the clans that still adhered to Cassivelaun saw their houses burnt, their fields pillaged, and their cattle driven off.³ The murmurs increased until eventually the Cenimagni⁴,

¹ "His Cæsar imperat obsides xl frumentumque exercitui." — *B. G.* v. 20.

² "Trinobantibus defensis atque ab *omni militum injuria* prohibitis." — *B. G.* v. 21. Cæsar, therefore, was in the country of the Trinobantes.

³ The devastation of Britain must have been appalling, for Cæsar is represented as saying: "Τίς δ' οὐκ ἂν ὄρων ὀδύραίτο τὴν Ἰταλίαν ὁμοίως τῇ Βρεττανίᾳ κορθουμένην." — *Dion*, xli. 30.

⁴ Or Cenimani, the same as the Iceni (Norfolk and Suffolk). They are called by Ptolemy the Σιμενοί, and are placed by him next to the Trinobantes on the north-west. *Ptol.* ii. 3, 21. Probably also the same as Γενουνία μοῖρα, placed in Pausanias next the Brigantes. *Paus.* viii. 43.

Segontiaci¹, Ancalites², Bibroci³, and Cassi⁴, the clans round about the Catyeuchlani, sent envoys to Cæsar and tendered their submission. The states which thus revolted from Cassivelaun had probably been not long before brought under his rule or subjugated by one of his ancestors, and were now, like the Trinobantes, endeavouring to throw off the galling yoke.

As Cassivelaun with his 4000 charioteers still kept the field, Cæsar resolved on striking a blow, which at all events must shake the prestige still attaching to the name of the British patriot. The Cassi, who had turned traitors and were the nearest neighbours of Cassivelaun, offered to conduct the enemy to the capital of the

¹ Not known; but on one of the coins of Cunobelin, successor to Cassivelaun as king of the Catyeuchlani, is the half word *SEGO.*, no doubt indicating the Segontiaci, subjects of Cunobelin. (See *Monum. Hist. Brit.*) Caernarvon bore the name of Segontium, but this seems too distant.

² Not known; but perhaps Oxfordshire, as the Dobuni were the subjects of the Catyeuchlani (*Dion*, lx. 20); and the name of Ancalites has been thought to be still traceable in the town of *Henley* on Thames.

³ Not known; but perhaps Buckinghamshire. In the map of Richard of Cirencester (A. D. 1340) the *Bibroci* are placed in Berkshire; but they appear to have been subjects of Cassivelaun, and he had no territory to the south of the Thames.

⁴ The hundred of Cassio, in Hertfordshire. Some think that Cassivelaunus is Belinus, or king, of the Cassi, as Cunobelinus is conjectured to be Belinus, or king, of the Iceni; but if the Cassi were the immediate and proper subjects of Cassivelaunus, it is hardly credible that they should have revolted from him, and afterwards have urged the capture of Verulamium, their own capital. In the Monument. Ancyran. are the following words: "Ad me (Augustus) supplices confugerunt . . . Reges Britannorum Damno Bel- launusque." (See *Mon. Hist. Brit.* cvi.) It is singular that as Bel- launus enters into the composition of Cassivelaunus and Cunobelinus, so Damno may be traced in the names of Cogidumnus and Togo- dumnus, kings in the time of Claudius.

Catyeuchlani, Verulamium, or St. Albans; and, as the place was at no great distance, Cæsar led his legions thither, hoping that the loss of the chief city might bring his antagonist to reason. The town is described by Cæsar as fortified by a rampart and a ditch, and as deriving additional strength from woods and marshes.¹ The woods have long since been cleared, but the river Ver (from which the name of Verulamium) still runs to the north of the old site, and formerly stagnated in marshes.² The inclosure within the rampart was very different from one of the continental cities, which usually consisted of narrow streets and many-storied houses. In the capital of Cassivelaun, on the contrary, was a freedom of space, and there were trees and pastures, or as we should call them parks.³

The place was indefensible against a regular and well-disciplined army like that of Cæsar, and Cassivelaun dared not risk his fortunes upon the forlorn hope of withstanding an assault or sustaining a siege. The only possibility of averting the blow was by creating a diversion to the south of the Thames, and he therefore sent orders to the four princes of Kent—Cingetorix, Carnilius, Taximagulus, and Segonax—who still remained faithful to the British cause, to collect with dispatch the Kentish forces and make a dash at the Roman camp. It was hoped that if the attempt did not succeed it might still distract the invader's attention. Quintus Atrius, who had been left in com-

¹ "Silvis paludibusque munitum . . . silvas impeditas vallo atque fossâ munierunt . . . locum reperit egregiè naturâ atque opere munitum."—*B. G.* v. 21.

² See Clutterbuck's *History of Hertfordshire*.

³ "Oppidum autem Britanni vocant, quum silvas impeditas vallo atque fossâ munierunt, quo incursionis vitandæ causâ convenire consuerunt."—*B. G.* v. 21.

mand of the camp, proved himself equal to the emergency. Following the example set him by Cæsar himself in the former campaign, he did not await the enemy's attack, but making a sudden sally threw the Britons into confusion, and even captured Lugotorix, an officer of high rank. This damped the courage of the allies, and any further attempt was abandoned as hopeless.¹

We may here mention by the way, how improbable and untenable is the hypothesis that the camp of Cæsar was at Pevensey. There is not the least reason to suppose that the boundaries of Kent were ever different from the present, and to the west of the Cantii were the Regni, or people of Sussex and Surrey.² The injunction laid by Cassivelaun upon the kings of Kent to assault the camp of Cæsar was evidently because the locality of it was in Kent. Had it been at Pevensey, the order would have been sent to the Regni, or at least to the Regni and Cantii conjointly, but not to the Cantii exclusively. But on the assumption that Cæsar landed at Romney Marsh, and entrenched his camp at Limne, the circumstance is just what would be expected.

Cæsar, meanwhile, undiverted by the hostilities in Kent, closed around the doomed capital of Cassivelaun, and, dividing his army into two bodies, delivered the assault at two different points. Cassivelaun him-

¹ B. G. v. 22.

² The capital of the Regni was Regnum, or Chichester; and, about a century after this time, Cogidunus, a feudatory of the Romans, was king of the Regni. *Tac. Agric.* 14. Some years ago, a most interesting tablet was discovered at Chichester, bearing the name of Cogidubnus (no doubt the same as Cogidunus), and indicating that under his auspices a temple, dedicated to Minerva and Neptune, had been erected in the reign of Claudius at the expense of the ironmasters of Sussex. See *Horsley's Britain*, and *Monum. Hist. Brit.*

self was not present, and probably the garrison was not numerous. On the other hand, the legionaries were now engaged on an enterprise which was familiar to them, and advanced to the assault with their wonted alacrity. The Britons could not long bear the brunt of the disciplined valour of the Romans, and were driven from the city with no great loss of life, but leaving as a spoil to the enemy the numerous flocks and herds which had been here collected from the adjacent country.¹

The fortunes of Cassivelaun were now at their lowest ebb. With occasional glimpses of success, he had been beaten in every general engagement. He had seen his

¹ I have adopted the common notion that Verulamium was Cassivelaun's town; but there are objections to it, for it was probably the capital of the Cassi, and, if so, it is very unlikely that they should have stimulated Cæsar to march against it (*B. G.* v. 21); and, besides, it does not very well answer to the description given by Cæsar, viz. a place defended by woods and marshes, though both woods and marshes may at that time have existed.

On the other hand, there are many plausible arguments in favour of London. The latter was unquestionably a British settlement, as the name implies, and about 100 years after this was one of the first, if not the first, city in Britain. *Tac. Ann.* xiv. 33. The situation also exactly agrees, for Cæsar says the place was "sylvis paludibusque munitum" (*B. G.* v. 21); which Orosius expounds as follows: "oppidum inter duas paludes situm, obtentu insuper sylvarum munitum" (*Oro.* vi. 9): and just such is London as painted by the old chroniclers. "An immense forest originally extended to the river side, and, even as late as the reign of Henry II., covered the northern neighbourhood of the city. It was defended naturally by fosses; one formed by the creek which ran along Fleet Ditch (west), and the other afterwards known by that of Walbrook (east). The south side was guarded by the Thames; the north they might think sufficiently guarded by the forest." — *Encyc. Londin.* art. "London."

If London was the place attacked, we can understand why the Cassi should have prompted it; for their chief city, Verulam, was the old capital of the Catyuechlani, and they were naturally jealous of the rising importance of the great commercial mart.

capital taken and sacked; many of the states which owed him allegiance had revolted. On the other hand, Cæsar also felt himself in a critical situation. True, he was master of the ground on which he stood, but so long as Cassivelaun was at the head of his 4000 charioteers, the victor could not subdivide his army, and could not even detach his cavalry on any expedition, either for the annoyance of the enemy or defence of his allies. The subsistence of his troops depended altogether on the Trinobantes, and should the party opposed to Mandubert gain the ascendancy, even their fidelity could not be reckoned upon. He was also uneasy about the camp, which was too far distant to be under his own keeping, and where again the Britons might assemble in force and with better success. But above all, it was now the month of September, and as it was quite impossible that he should remain in Britain during the winter (for the Gauls would rise in his absence), it was necessary to take measures for his immediate return. If the equinoctial gales set in, some serious loss might occur. It was thus evidently Cæsar's policy to patch up a peace and retire from the contest, if he could do so with credit, or at least without dishonour. In addition to the chagrin arising from the want of his usual military triumphs, Cæsar had also a heavy heart from the news which now reached him of the death of his beloved daughter Julia, the wife of Pompey, the disruption of the last frail tie which held the two ambitious chiefs together.¹

It was about this time, when Cæsar saw the necessity of coming to terms, that he wrote to Cicero to prepare the Roman public for the abandonment of Britain. "I learn from my brother's letter," writes

¹ "C. Cæsar quum Britanniam peragraret, nec oceano felicitatem suam continere posset, audivit decessisse filiam, publica secum fata ducentem." — *Senec. de Consolat. ad Marciam*, 14.

Cicero to Atticus, "some extraordinary instances of Cæsar's regard for me, and this is confirmed by a very full letter from Cæsar himself. They are now looking forward to a termination of the war in Britain, for it is plain that the approaches to the island are defended by stupendous masses (the cliffs). They have also found that there is not a scrap of gold in the whole island! nor any prospect of booty except from slaves, amongst whom, methinks, you may look in vain for any skill in letters or music."¹

According to Cæsar, the first overtures for peace came from Cassivelaun; but one circumstance is mentioned incidentally which leads us to conjecture that though ostensibly the ground was broken by Cassivelaun, yet in fact the movement proceeded from Cæsar himself. It is said that the proposition reached Cæsar through Comius of Arras. Now Comius was the creature of Cæsar and followed his camp, and it is not unlikely that the politic Roman conveyed an intimation through Comius that if terms of peace were offered they would be favourably received. At all events, an arrangement was come to by which Cassivelaun was to give hostages for his good faith, and Britain was nominally to pay a fixed annual tribute.² The hostages were given, but no tribute was ever paid, and it was probably understood at the time by both parties that the tribute was not to be exacted. Any one might foresee that it would not be forthcoming except on compulsion, and as Cæsar did not propose to leave any garrison in the island, he of course knew that the tribute would never

¹ *Epist. Attic.* iv. 16. The letter to Atticus was written in the latter half of October; and the letter of Cæsar must therefore have been written in the latter half of September.

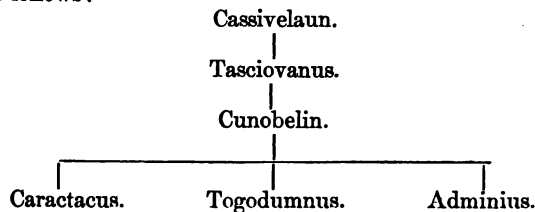
² Cæsar speaks of Britain generally; but Livy writes "*aliquam partem insulæ in potestatem redegit.*" — *Liv. Epit.* lib. 105.

reach his exchequer. Mandubert and his partisans amongst the Trinobantes had betrayed their country's cause, and attached themselves to the fortunes of Cæsar, and the Roman ought not to have negotiated a peace without providing for the safety of Mandubert and his friends. It would appear, however, that Cæsar did not make it one of the articles of the treaty that Mandubert should be seated on the throne of the Trinobantes, but contented himself only with an idle threat if Cassivelaun should ever disturb him.¹ Cæsar must have felt that if he withdrew his army into Gaul, as was his fixed intention, it was impossible to secure to Mandubert the possession of his kingdom. Such, at all events, was the result, for a century afterwards we find the kings of the Catyeuchlani, the descendants of Cassivelaun, ruling over the Trinobantes.² To what immediate successor was transmitted the crown which Cassivelaun had so manfully maintained, history has not informed us; but there must have been but little space between him and Tasciovanus, who was the father of Cunobelin, or Cymbeline, who was the father of Caractacus, the British hero in the reign of Claudius.³ The coins of Tascio-

¹ "Interdicit atque imperat Cassivelauno ne Mandubratio neu Trinobantibus bellum faciat." — *B. G.* v. 22.

² "Πρῶτον μὲν Καταράτακον, ἔπειτα Τογόδουμνον Κυνοβελλίνου παῖδας ἐνίκησεν, αὐτὸς γὰρ ἐτεθνήκει· φυγόντων δὲ ἐκείνων προσποιήσατο ὁμολογίᾳ μέρος τι τῶν Βοδούνων, ὧν ἐπῆρχον Κατοελλανοὶ ὄντες." — *Dion.* lx. 20.

³ The pedigree of the kings of the Catyeuchlani would therefore stand as follows: —



vanus are stamped with the name of Verulamium, the capital of the Catyeuchlani, and the coins of Cunobelin with the names of Verulamium and Camulodunum, the capital of the Trinobantes¹, and at the latter Cunobelin seems eventually to have fixed his palace.²

Cæsar now retraced his steps to the sea, and one is curious to know what was his route; where he crossed the Thames, and through what towns he passed. But his narrative gives no details, and we may therefore conclude that the march was an ordinary one, and that no misadventure occurred. The Britons no doubt watched with satisfaction the retrograde movement of their powerful adversary, and were well enough content to let him depart in peace.

How far northward Cæsar had advanced before the conclusion of hostilities it is impossible to say. Strabo, on the one hand, affirms that it was no great way³; Florus, on the other, speaks of his having penetrated even to the Caledonian woods.⁴ We collect from the Commentaries that Cæsar, with his army, was amongst the Trinobantes, and subsequently at Verulam; but we should imagine, from the short time spent in Britain, that he did not proceed much further—not probably beyond Hertfordshire.

Cæsar on reaching Limne was under some anxiety how to transport his troops. A large proportion of his vessels had utterly perished in the storm shortly after his arrival; but he had left orders for the refitting of

¹ See the coins in *Mon. Hist. Brit.* p. 153.

² "Τὸ Καμουλόδουνον τὸ τοῦ Κυνοβελλίνου βασιλείου." — *Dion.* lx. 21.

³ "Οὐδὲ προελθῶν ἐπὶ πολὺ τῆς νήσου." — *Strab.* lib. iv. c. 5.

⁴ "Caledonias secutus in sylvas unum quoque e regibus Cavellianis (q. Cantianis, or Cassivelaunianis, see *Cæs. B. G.* v. 22) in vincula dedit." — *Florus Epit.* iii. 10.

such as had been damaged only, and had instructed Labienus, who had remained in Gaul, to build others with the greatest dispatch. The repairs of the old fleet had been completed, but no additional ships from Labienus had arrived. As, therefore, the whole army could not be conveyed at once in the vessels at command, Cæsar determined on making two successive shipments. The first part of the army was embarked at once, and Cæsar himself, like a prudent general, remained in Britain in charge of the second division.

It was during this interval, while he was waiting for the return of his ships with the addition of those newly built by Labienus, that he wrote another letter to Cicero at Rome. It appears to have communicated no striking intelligence, but was a mere summary. Every word, however, written by Cæsar, and from Britain, possesses a high degree of interest, and it needs no apology to give Cicero's notice of it in an epistle to his friend Atticus. "On the 24th October," he says, "I received a letter from my brother Quintus, and another from Cæsar, *dated from the shores of Britain, the 26th September*. Britain was disposed of, and hostages received; no booty, but a tribute imposed. They were bringing back their troops from Britain."¹

The date of 26th September must not mislead us. The calendar had not been reformed, and the reckoning of time was extremely erroneous, and we shall see presently that in reality the letter must have been written

¹ "Ab Quinto fratre et à Cæsare accipi a. d. ix. Kalend. Novemb. litteras; confectâ Britannîâ, obsidibus acceptis, nullâ prædâ, imperatâ tamen pecuniâ; datas a littoribus Britannîæ, proximo a. d. vi. Kalend. Octob. Exercitum Britannîâ reportabant." — *Cic. Ep. Attic.* iv. 17.

at least some days previously, viz. before 24th September.

In maritime matters Cæsar throughout was most unfortunate. As the return transports and the newly built vessels from Labienus were crossing the channel, they encountered such a storm that few of them only reached Britain, and the rest were driven back to the port which they had quitted. Nothing could be more mortifying. In a short time heavy gales were to be expected, and the navigation of the seas would become dangerous. As one division only of the army was in Britain, the islanders, encouraged by the enemy's weakness, might, as they had done the previous year, again commence hostilities, when who could foresee the result? Several days passed, and either from stress of weather or want of repairs, the expected vessels from Gaul did not arrive. The equinox was just at hand¹, and Cæsar was afraid of any longer delay, and therefore determined on embarking the remaining forces at once in the stinted number of vessels which had reached him. The decks would of course be inconveniently crowded, but departure from Britain was to be effected at any cost. At nine o'clock at night, in calm weather, Cæsar hoisted anchor from the shores of Britain, leaving not a soldier behind², and never more to return. Boulogne was reached at *break of morn*; and the day may be fixed with some degree of precision as follows:—The equinox was not over but was close at hand, and it must therefore have been before, and not long before, the 24th September, which was then reckoned the day of the

¹ "Quod equinoctium suberat." — *B. G.* v. 23.

² "Καὶ οὐδὲν ἐγκατέλιπε σράτευμα ἐν αὐτῇ." — *Dion.* xl. 4.

³ "Summâ tranquillitate consecutâ, secundâ inîtâ quum solvisset vigiliâ, primâ luce terram attigit." — *B. G.* v. 23.

equinox. As the sun rises about that time a little before 6 A.M., he must have gained Boulogne about 5 A.M., when daylight would begin. But as Boulogne was a tidal harbour, it was necessary that he should enter it at, or a little before, high water. On what day, therefore, would it be high water at Boulogne at 5 A.M. just before the 24th September? The full moon for September, B. C. 54, was on the 15th of the month, when it would be high water at Boulogne at 11.20 A. M. Consequently, if we reckon forward, we shall find that it was high tide at Boulogne at 5 A.M. on the 22nd September. It was thus on the evening of the preceding day, or the 21st September, that Cæsar quitted Britain for ever.

We must here draw an inference from the time occupied in crossing the Channel. As Cæsar sailed at nine at night, and gained the coast of Gaul at 5 A.M., he was just eight hours on the passage. Now, if he steered for Boulogne, which is twenty-eight miles, the rate of sailing was three and a half miles an hour, which is what might be expected from row boats in calm weather.¹ But if he embarked, as the Astronomer Royal supposes, at Pevensey, and sailed to the estuary of the Somme, a distance of sixty miles, it would yield an average speed of seven and a half miles an hour, which for row boats, and in a calm, is inconceivable. The Professor urges, as an argument in his favour, that Cæsar, on arriving in Gaul, held a council at Samarobriva, or Amiens, which is on the Somme²; but I cannot attach any importance to this, as it is expressly

¹ They were all "actuariæ" (*B. G.* v. 1), and it was "summa tranquillitas" (*B. G.* v. 23).

² "Subductis navibus, concilioque Gallorum Samarobrivæ peracto." — *B. G.* v. 24.

mentioned that he had previously laid up his vessels in ordinary at the port of his arrival, and might of course after that have departed for Amiens or any other town of Gaul. The very fact also of laying up the vessels in ordinary implies the presence of naval docks and yards on an extensive scale, which would be found in the great port of the Morini, but not in a mere estuary.¹

I have now sketched the two Invasions of Britain by Cæsar, and the little success of them is matter of surprise. In the first year, Cæsar scarcely ventured a mile from the sea-shore. He had wholly miscalculated the strength of the enemy, and being destitute also of cavalry, he acted throughout, after his first landing, on the defensive. On the second occasion he attempted, at the head of three times the force, and a numerous body of cavalry, to retrieve his credit; but such was the obstinacy with which the Britons encountered him, that until the rebellion in his favour of the Trinobantes he was reduced by the tactics of the enemy to the utmost straits. Even after the civil dissension which threw the Trinobantes and the clans which followed them into the arms of Cæsar, Cassivelaun, with his charioteers, was master of the country, except in the immediate neighbourhood of the legions. The Britons were no doubt far behind the Romans in discipline, and Cassivelaun may not have been a match for Cæsar in strategy; yet the islanders displayed such an indomi-

¹ "Un fait me paraît trancher la question: c'est la mise à sec des vaisseaux après le retour à Icius (*B. G.* iv. 21). Or ceci ne peut s'entendre que d'un véritable camp naval construit selon toutes les règles, c'est à dire, divisé par quartiers, flanqué de palissades, entouré d'un large fossé (*Tit. Liv.* xxxvi. 45, xxiii. 28), protégé enfin, défendu avec toutes les ressources qu'offrait à Césâr sa longue pratique de castramétation." — *Mariette*, 34.

table spirit, and Cassivelaun so much natural military genius, that Cæsar was content to retire from the contest without any sensible advantage. The British general, instead of being led a captive to Rome, treated for peace on a footing of equality. Even the terms agreed upon in favour of Rome were probably never meant to be, and certainly never were, fulfilled. One thing is clear, that when Cæsar quitted the island he left not a soul behind, and that for about 100 years afterwards the Britons were as free as if a Roman legion had never trod the soil. Cæsar of course represents his exploits in the most favourable light, and would have us suppose that he succeeded in extorting hostages and imposing a tribute; but had the British Annals descended to us by the side of the Roman Commentaries, we might then have heard of the destruction of Cæsar's cavalry by the Eshedarii, the weakening of the legions by successful sallies against their rearguard, and the thinning of their ranks from exposure and privation, until at length the conqueror of Gaul was under the necessity of submitting to an ignominious peace. Even his own countrymen have done the Britons some justice, for Tacitus confesses that Cæsar by his two campaigns made only the discovery of Britain, not the conquest of it¹; that although victorious in more than one fight, he had eventually been worsted and obliged to abandon the enterprise²; that the Britons, in short, retained their freedom,

¹ "Primus omnium Romanorum Divus Julius cum exercitu Britanniam ingressus, quanquam prosperâ pugna terruerit incolas, ac littore potitus sit, potest videri ostendisse posteris, non tradidisse." — *Vit. Agric.* 13.

² "Recessuros [Romanos], ut Divus Julius recessisset, modo virtutes majorum suorum [Britanni] æmularentur, neve prælii unius aut alterius eventu pavescerent." — *Tac. Agric.* c. 15.

and were never tributaries to Rome.¹ Lucan even goes so far as to say that Cæsar and his army had fairly shown their backs to the Britons; and Horace² and Tibullus³ both treat the Britons as still unvanquished in their time. Strabo observes that Cæsar made no great progress; ⁴ and Dion Cassius tells us that Cæsar was repulsed⁵, and that he brought the war in Britain to a conclusion very little to his liking.⁶ This we can readily conceive, for the expense of constructing 800 vessels, and freighting them with a numerous army, must have been enormous; and what was there to show for it?—Cæsar in Gaul, and Britain without a Roman!

¹ "Vacui a securibus et tributis."—*Tac. Ann.* xii. 34.

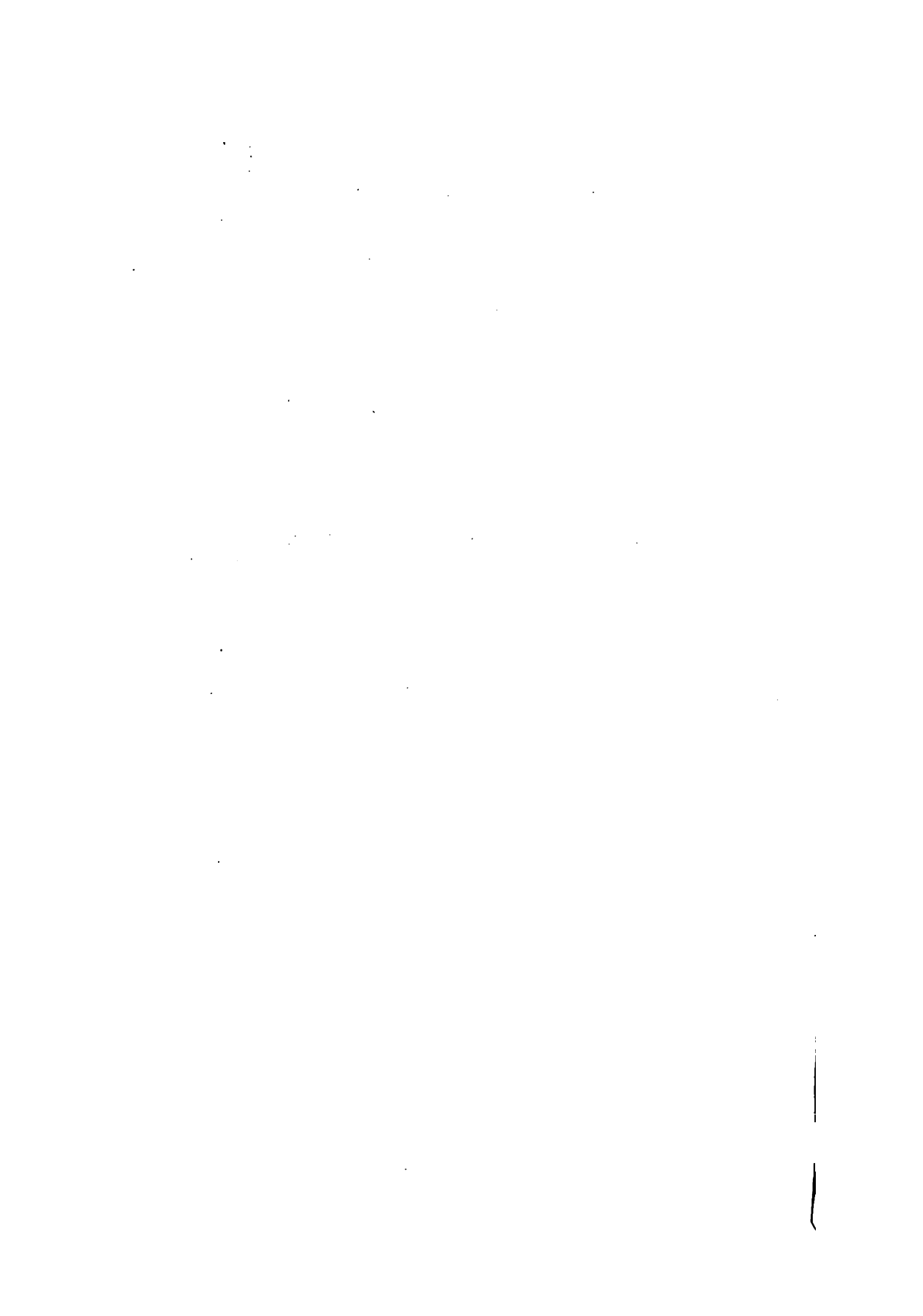
² "Intactus Britannus ut descenderet
Sacra catenatus via." *Epod. Lib.* vii. 7.

³ "Te manet invictus Romano Marte Britannus."—*Lib.* iv. v. 149.

⁴ "Οὐδὲν μέγα διαπραζόμενος."—*Strabo*, iv. 5.

⁵ "Τὸν Καίσαρα τὸν Ἰούλιον ἐκεῖνον ἐξηλασαμεν [the Britons]."—*Xiphilinus*, cited *Mon. Hist. Brit.* p. lvi.

⁶ "Οὐχ οἶον ἐβούλετο τῷ πολέμῳ τέλος ἐπέθηκεν."—*Vit. Jul. Cæs.* 23.



APPENDIX.

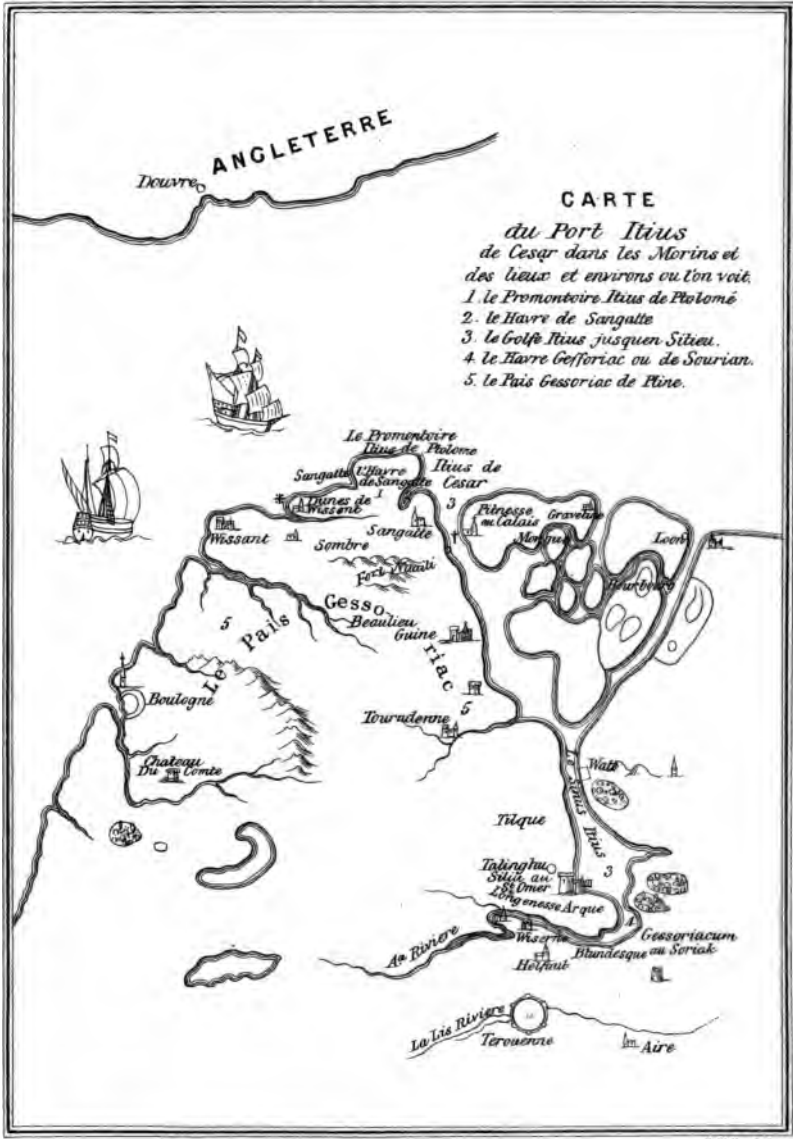
No. I.

SINCE the preceding pages were written, the Rev. C. Merivale (author of the "Roman History") has kindly placed in my hands a tract by Christopher Godmond, Esq., published in 1836, intituled "A Memoir of Therrouane and a Discourse on the Portus Itius of Cæsar." It is there contended that the port from which Cæsar sailed was Wissant, and the *portus superior* Sangatte, and that the debarcation was at Deal. The arguments by which these views are supported contain little novelty, and do not shake the author's confidence in the theory submitted to the reader in the foregoing Essay. The only remarkable feature in the publication is, the copy of an old map, of which the following account is given:—

"M. Deneufville, in an autograph MS. of the date 1724 and 1725, intituled 'Annales de la Ville de St. Omer,' shows an ancient chart of the country of the Morini and of the Portus Itius, where Malbrancq places it, at Sangatte, including Therrouanne, as the country was in the 8th century. The original chart, however, is not now amongst other MSS. of the 8th century in that library." And Mr. Godmond continues: "The author of this Memoir has seen the copy of M. Deneuf-

ville attached to the MS. in the library of St. Omer, but on inquiry for the original amongst the MSS. of the 8th century, he was informed it had been lost."

That the reader may judge for himself as to the genuineness of the map, a copy of it is annexed; but the author cannot regard it otherwise than as a fanciful sketch, illustrative of the draftsman's idea that the sea once flowed up to St. Omer. For this purpose the geography of Ptolemy has been ingeniously applied. It will be seen on inspecting the map that the Ἰκίον Ἄκρον of Ptolemy is placed at Cape Blancnez instead of Cape Grisnez, and the Γηρογέλιον ἐπίγειον of Ptolemy at St. Omer. In aid of the latter view the three last syllables of Gesoriac are identified with the site of an old chapel near St. Omer called Sorlack. That changes in this part of the coast may have taken place is not improbable, but it would require strong evidence to prove that the face of the country has undergone so total a transformation as here represented, not to mention that a map of the 8th century, existing in 1724, would be a topographical curiosity.



No. II.

Should the discussion in the foregoing pages upon the subject of the Coway Stakes have excited any interest in the reader, some further particulars may not be unacceptable. A so-called Coway Stake has been deposited in the British Museum, and may be seen there amongst the British Roman Antiquities. A sketch of it is annexed. That it may have been brought from Coway ford is not impossible, but it can scarcely have been one of those described by Bede, as cased with lead and about the size of a man's thigh, or one of those which were taken by the fisherman Simmons to have served for the piles of an ancient bridge. The Museum stake is about four feet long, has no trace of either iron or lead, and is not bigger than a man's arm. The lower half apparently has been buried in the ground, and the upper half only exposed to the action of water. The wood is thought to be oak. If the relic be genuine, it must have been one of the stakes planted near the river's edge.

However, Cæsar speaks of *acutæ sudes*, while the head of the one in question has been flattened by the mallet or driver.* Indeed it has all the appearance of an ordinary stake used for a weir, or for some fishing apparatus.

* A friend, who has examined the stake with some minuteness, observes that the fibres of the wood at the head lie all in one direction, and that this is the result, not of mechanical force, but of the constant action of the stream.



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REPLIES TO THE REMARKS

OF THE

ASTRONOMER-ROYAL

AND OF THE

LATE CAMDEN PROFESSOR OF ANCIENT HISTORY

AT OXFORD

1862.

LONDON
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REPLY TO THE REMARKS OF THE ASTRONOMER-ROYAL

IN the number of the "Athenæum" for 10th September, 1859, the Astronomer-Royal offered some remarks upon my theory that Cæsar sailed from Boulogne, and landed at Romney Marsh; and repeated his own conviction that Cæsar sailed from the Somme, and landed at Pevensey. I feel greatly obliged to the Astronomer-Royal for having again directed his attention to the question, as the weight of his name has invested the subject with an interest which my own labours, however just the reasoning, could not have secured to it. The delay on my part in not earlier replying to his observations, has not arisen from any want of respect towards the Astronomer-Royal, still less from any distrust of my own hypothesis, but simply from my having been unusually occupied during the interval by other engagements.

I.* The first question between the Astronomer-Royal and myself is, as to the sense of the passage

* The remarks of the Astronomer-Royal are given verbatim in the notes.

I. "Cæsar, in speaking of his march to the coast, uses the expression, 'in Morinos proficiscitur;' and in my paper in the 'Archæologia' I have maintained (supporting my opinion by some citations) that the true meaning of 'proficiscitur' is 'sets out.' Mr. Lewin

“in Morinos proficiscitur,” which he interprets, that Cæsar only *set out for* the Morini without arriving there, and, “after examining a large proportion of all the instances in which Cæsar uses the inflections or derivatives of ‘*proficiscor*,’” he concludes that “in all, without any exception, another sentence or another clause is required to denote arrival at a journey’s end.” I should say, on the contrary, that there are *many* instances of Cæsar’s use of the word “*proficiscor*” in the sense not only of setting out for, but also of arriving at a place. For example, in speaking of Druidism amongst the Gauls, he states that they derived it from Britain, and adds, “et nunc, qui diligentius eam rem cognoscere volunt, plerumque illò, discendi causâ, *proficiscuntur*,” B. G. vi. 12. These words close the section, and *proficiscuntur* is not accompanied with “another sentence or clause,” and yet necessarily signifies an arrival in Britain where only the study was to be prosecuted. Again, “Quietâ Galliâ, Cæsar, ut constituerat, in Italiam ad conventus agendos *proficiscitur*: ubi cognoscit de P. Claudii cæde,” vii. 1. How could Cæsar hear in Italy of Claudius’s death, unless he had arrived in Italy? Again, “Divitiacus, auxilii petendi causâ Romam ad

dissents from that translation. A question of verbal criticism cannot be settled by a single case; and I must occupy a little space in treating this.

“I have examined a large proportion of all the instances in which Cæsar uses the inflexions or derivatives of ‘*proficiscor*,’ and I find that their applications are the following:—(1.) In some they refer simply to the act of setting out. (2.) In some a purpose of setting out is mentioned. (3.) In some a direction is indicated, or a spot at which the journey is to end is named. (4.) But in all, without any exception, another sentence or another clause is required to denote arrival at the journey’s end.” And the Astronomer-Royal then proceeds to adduce supposed examples of the several meanings of the word suggested by him.

Senatum *profectus*, infectâ re redierat," vi. 11. How could Divitiacus have returned from Rome unless he had first arrived there? And similar examples will be found elsewhere, as in v. 25; iii. 23; vii. 90.

But in assuming that Cæsar arrived in the country of the Morini, I did not rely *merely* or even *chiefly* upon the words, in Morinos proficiscitur (for no doubt one sense of proficisci is to set out for a place), but upon the whole context, and more particularly upon the subsequent passage, dum in his locis Cæsar navium parandarum causâ moratur, which leads me to the next head; for

II.* The Astronomer-Royal parries the force of the last extract by observing, "The expression [in his locis] appears to me to be studiously indefinite. I conceive that it is rendered in English with perfect precision, 'While Cæsar was in this part of the country.'" But let me ask in *what* part of the country? Not in the part from which he had set out, for he could not go and stay (proficisci and morari) at one and the same place, at one and the same time. Nor (as he was marching from the confluence of the Moselle and the Rhine in the direction of the Morini) could he have made his sojourn (moratus) on the road, inasmuch as the reason assigned for the halt is navium parandarum causâ, and naval preparations could not have been carried on in the heart of the continent. In short, in his locis clearly points to the country of the Morini,

* II. "Mr. Lewin attaches importance to the words, 'Dum in his locis Cæsar moratur,' as if the words 'in his locis' meant that Cæsar was certainly in the country of the Morini. To me they convey no such meaning. The expression appears to me to be studiously indefinite. I conceive that it is rendered in English with perfect precision, 'While Cæsar was in this part of the country.'"

i. e. he had gone (profectus) to the Morini, because, as he tells us expressly, thence was the shortest passage to Britain, quod inde erat brevissimus in Britanniam transjectus, iv. 21; and on his arrival there he occupied himself about what he came for, viz. the equipment of his vessels; and when he had actually sailed it was matter of congratulation that the Morini had previously tendered their submission, so that he did not leave an enemy *behind him*, which also implies that he had started from amongst the Morini. “Quod neque *post tergum* hostem relinquere volebat,” iv. 22.

But the Astronomer-Royal adds, “It appears to me that the word proficisci *permits* that Cæsar did not enter the country of the Morini. It appears to me that Cæsar’s reception of delegates from the Morini, when there is no account of any preceding transaction with them, renders it *probable* that he had not entered their country; and it appears to me that the order (after his second return) for legions to march from the Portus Itius, makes it *certain* that he was not in their country.”

Of the meaning to be attached to the word proficisci we have spoken already. As to the second step in this argument, that “Cæsar’s reception of delegates from the Morini makes it *probable* that Cæsar was not then in their country,” I do not see how, admitting the fact that the Morini sent delegates, the conclusion could be fairly drawn that Cæsar was not in their country. Take the analogous case of Cæsar’s passage over the Rhine. He crossed from the Treviri on the western bank (Firmo in Treviris præsidio ad pontem relicto, vi. 8), into the country of the Ubii on the eastern bank (partem ultimam pontis, quæ ripas Ubiorum contingebat, &c. vi. 28), when the Ubii despatched envoys to him :

“Ubii, . . . purgandi sui causâ, ad eum legatos mittunt,” vi. 8. Here Cæsar was amongst the Ubii, when, according to the Astronomer-Royal’s reasoning, his reception of the Ubian delegates would indicate his presence elsewhere. However, the statement that Cæsar was waited on by the delegates of the Morini is not quite an accurate representation of the fact. The words of Cæsar are, “*ex magnâ parte Morinorum ad eum legati venerunt,*” iv. 22. The delegates came not from the Morini, as an entire state, but only from a section of them ; and there is not the least inconsistency in Cæsar being in one part of Morinia and envoys arriving from another part. I observe, moreover, that whilst Cæsar is still amongst the Morini, he invariably speaks of them with some qualification. Thus, a few lines after, on quitting Gaul, he directs a part of the force which he left behind to be led not against the Morini, but “*in eos pagos Morinorum ab quibus ad eum legati non venerant,*” iv. 22. And again, on his return to Gaul, he orders a detachment, not in Morinos, without qualification, but in Morinos *qui rebellionem fecerant,* iv. 38.

But how are we to deal with “the order (after his second return) for legions to march from the *Portus Itius in Morinos* which makes it *certain* that he was not in their country.” If the premises were simply such, there would be some slight ground for the inference, but where does the Astronomer-Royal find that legions were ordered to march from the Portus Itius to the Morini. One would suppose from the language of the Astronomer-Royal that Cæsar, immediately on his return to the port from which he had embarked, sent off some legions “in Morinos.” But here a circumstance has been omitted which entirely destroys the force of the reasoning. Cæsar tells us that on his return from

Britain the vessels were laid up in ordinary, and that he then held at Samarobriva, now Amiens, a town of the *Ambiani* and not of the *Morini*, a general council of the Gauls, and that it was not until the council broke up that he delivered over *one legion* (not legions) to C. Fabius to be marched to the Morini. "Subductis navibus, concilioque Gallorum Samarobrivæ peracto, unam (legionem) in Morinos ducendam C. Fabio legato dedit, v. 24. When the legion, therefore, was ordered in Morinos, Cæsar was no longer at Portus Itius, but amongst the Ambiani, and the expression in Morinos, has, therefore, not the least bearing upon the question one way or the other. It cannot even be urged that though Cæsar himself was at Amiens, yet the army had not accompanied him, but remained behind at the port; for it is said that Cæsar, who was certainly *himself* at Amiens, "unam in Morinos ducendam C. Fabio legato *dedit*," v. 24, which implies that this legion at all events was with Cæsar, and committed by him personally to the charge of his legate Fabius.

III.* The next question between us is as to the true

* III. "Mr. Lewin is at variance with me on the interpretation of the celebrated passage (referring to the Portus Itius) 'quo ex portu commodissimum in Britanniam transjectum esse cognoverat circiter millium passuum xxx à continenti.' (I purposely omit punctuation.) On this I say, and I have not the least doubt of receiving the support of any good Latinist who will repeatedly consider the sentence, first, that the 'ex portu commodissimum transjectum,' and the 'transjectum circiter millium passuum xxx à continenti,' must refer to two different things; and that, if Cæsar had intended to refer doubly to the same thing, the words 'à continenti' would not have been written. Secondly, that the form of the sentence is so bad, that I think it nearly certain that the sentence was originally terminated at 'cognoverat,' and that the rest was an interlineation. I have stated this before; but as Mr. Lewin has not alluded in detail to my reasons, I repeat them with the remark, that their force is undiminished."

interpretation of the passage, "quo ex portu (Itio) commodissimum in Britanniam transjectum esse cognoverat circiter millium passuum xxx à continenti," v. 2. According to my hypothesis the Portus Itius was Boulogne, and the place of debarcation was Romney Marsh, and the distance between the two would be thirty statute miles, and therefore upwards of thirty-two Roman miles; but, according to the Astronomer-Royal, the Portus Itius was the estuary of the Somme, and the landing-place Pevensey, and this passage would be more than twice thirty statute miles, or sixty-five miles Roman. How then was this difficulty to be met? The expression, as I had pointed out, is not mille passus xxx, which might refer to the distance of Britain generally from the Continent, but it is millium passuum xxx, and, so plainly governed by transjectum. The Astronomer-Royal, apparently assenting to this, maintains: *First*, that the "*ex portu commodissimum transjectum*, and the *transjectum circiter millium passuum xxx*, must refer to two different things!" In other words, that transjectum does double duty, and signifies two passages, one from the Itian port, which was the most convenient, and the other from a different place, whence the traverse was thirty miles. This surely is putting the screw upon the sentence, and extorting a meaning which it will not justly bear. Besides, the interpretation, if admitted, would fasten upon Cæsar a most palpable error, for Cæsar would be made to say that the distance from Gaul to Britain (viz. at the nearest point) was thirty miles, whereas it is little more than twenty miles. As the two coasts were plainly visible from each other, and Cæsar crossed the channel four times, he can scarcely have fallen into the blunder of making the

traverse half as much again as it really was. The Astronomer-Royal then argues: "*Secondly*, that the form of the sentence is so bad, that he thinks it nearly certain that the sentence was originally terminated at *cogno-verat*, and that the rest was an interlineation." But this is mere surmise, and there is not the least authority for a different reading of the text; nor (under favour), except for the purpose of giving countenance to the Astronomer-Royal's theory, is any different reading required.

IV.* The Astronomer-Royal tells me, that I "need not give myself the smallest trouble about the exact agreement of Cæsar's measure of the nautical distance [thirty miles] (an eye estimation) with that which we have now obtained from geodetic measures," meaning, as I understand him, that before "the triangulation of 1787," the reckoning was so loose that every estimate was purely conjectural, and must go for nothing. It no doubt coincides with the views of the Astronomer-Royal to hold this doctrine; but surely if Cæsar tells us that Portius Itius was thirty miles from Britain, and the distance between Boulogne and Folkestone is found to be about thirty miles, no inconsiderable weight is due to the coincidence.

* IV. "Mr. Lewin is anxious about the exact agreement of Cæsar's measure of the nautical distance (an eye-estimation) with that which we have now obtained from geodetic measures. On that point he needs not to give himself the smallest trouble. Before the triangulation of the year 1787, it was a fair and an insoluble question, whether the distance from the Continent to Britain was less than twenty or greater than forty miles. In the note to a Variorum edition of 1651 now before me, the distance from Boulogne to the nearest part of Britain is given as forty miles. Dion's measure (fifty miles) seems to me the most exact of those cited by Mr. Lewin, because I conceive it to be founded on some tradition of Cæsar's actual sea-passage from St. Valery to Pevensey."

Now the actual distance from Boulogne to Folkestone is, by the Admiralty charts, thirty statute miles + 2622 feet, so that if Roman miles and English miles were the same, the result would be very striking ; but as Roman miles are somewhat less than English miles, the distance is no doubt a little beyond thirty miles Roman ; but the approximation is just such as we should expect from the guarded expression of Cæsar, “of *about* thirty miles,” *circiter* millium passuum xxx, v. 2.

V.* The next question is as to the meaning of the words, *infra delatæ*. On Cæsar’s first return to Portus

* V. “Mr. Lewin objects to my suggested translation of ‘*infra delatæ*.’ I will beg him to remark, first, that I do not offer this translation with any strong confidence ; and, secondly, that the fate of no hypothesis as to Cæsar’s voyage depends on it. It is not given to reconcile any theory with Cæsar’s words, but to reconcile Cæsar with himself. It appears to me that the word ‘*proficiscitur*’ *permits* that Cæsar did not enter the country of the Morini : it appears to me that Cæsar’s reception of delegates from the Morini, when there is no account of any preceding transaction with them, renders it *probable* that he had not entered their country ; and it appears to me that the order (after his second return) for legions to march from the Portus Itius ‘in Morinos’ makes it *certain* that he was not in their country. With this, I have to reconcile the statement about the drifted ships ; and the conjecture which I have offered is, I think, plausible. But if any reader thinks that the reasons for excluding the Portus Itius from the land of the Morini are not sufficiently cogent, the whole is easily reconciled with the hypothesis, that the Portus Itius was the mouth of the Somme, by supposing that in the time of Cæsar the Morini stretched south-west of the Somme. In Cæsar’s time, the Morini were a powerful tribe ; their contingent for the Belgian association (lib. ii.) was 25,000 men, while that of the Ambiani was only 10,000, and that of the Caletes 10,000. The geography which limits their territory to the north of the Somme is 120 years later. Any one who reflects on the change of boundary of Russia, of Prussia, of Turkey, and of other European States, within a period of much less than 120 years, will find no difficulty in admitting this change in the limits of the Morini.”

Itius two ships were unable to make the same port with the rest of the fleet, and paullo infra delatæ sunt. I had contended that *infra* signified down channel, or southward, and that, consequently, as the crews of the two ships were immediately on landing attacked by the Morini, the country of the Morini must have extended to the south of Portus Itius. This would be the case if Portus Itius were Boulogne, but not if it were the mouth of the Somme. To encounter this argument the Astronomer-Royal advances the novel idea that *infra delatæ* means "drifting before the wind." I need not repeat the parallel passages in Cæsar, which prove beyond doubt that *infra* means "down channel." The Astronomer-Royal himself almost accedes to the criticism by saying that "he does not offer this translation with any strong confidence." But he subjoins, that "the fate of no hypothesis as to Cæsar's voyage depends on it." I beg respectfully to suggest that the Astronomer-Royal's own theory hinges upon this translation. If *infra* mean down channel, and Itius Portus be the Somme, the Morini, according to the Astronomer-Royal, must have reached beyond the Somme southward; but as other authorities show that the Morini did not extend beyond the Somme, it follows that the Somme cannot be the Portus Itius. "But," observes the Astronomer-Royal, "the geography which limits their territory to the north of the Somme is 120 years later than Cæsar," and he offers, as a solution of the difficulty, that "in the time of Cæsar the Morini stretched *south-west of the Somme*." If so, then the Somme itself, from which Cæsar sailed, and to which he returned, was, according to the Astronomer-Royal, in the country of the Morini; and yet, a few lines before, the Astronomer-Royal had stated "that the order (after

Cæsar's second return) for legions to march into the country of the Morini made it *certain* that he was *not in their country*." Thus to avoid Scylla, it is laid down as *certain* that Cæsar did not sail from the Morini, and then to avoid Charybdis the reader is invited to assume that the place of embarkation was amongst the Morini!

VI.* Cæsar speaks of a Portus Superior to the north of Portus Itius, and eight miles from it; and assuming Boulogne to be the Portus Itius, I had pointed to

* VI. "I now come to Mr. Lewin's hypothesis, that Boulogne was the Portus Itius. I pass over the citation from Florus (who wrote in the time of Trajan) and the railway company's estimate of distance (as being unimportant when Cæsar's necessarily vague estimate is to be compared with it); and I come to the estimation of *distances along shore*, which leave no room for great uncertainty. I premise the following pretty accurate measures:—

The French <i>lieue de poste</i>	4263 yards.
The nautical mile, or minute of latitude	2025 yards.
The Roman mile, about	1630 yards.

Mr. Lewin learned that the distance from Boulogne to Ambleteuse is $2\frac{1}{2}$ leagues, which he concludes (I know not by what arithmetic) to be 8 Roman miles. By applying the numbers above, it will be found to be only $6\frac{1}{2}$ Roman miles. But in reality this is not much to the purpose, for the estimate, which was given by a hotel-keeper, evidently relates to the *distance by road*. On measuring, upon the beautiful Admiralty Chart, the distance between the centre of the entrance to Boulogne and the centre of the entrance to Ambleteuse, I find it to be not quite $4\frac{1}{2}$ nautical miles, or $5\frac{1}{2}$ Roman miles; instead of the 8 miles given by Cæsar.

"I conclude that Boulogne and Ambleteuse will not be cited again in conjunction, as representing the Portus Itius and Portus Superior of Cæsar.

"The ports which I have assigned (the mouth of the Somme and the mouth of the Authie) correspond very well, as regards their geographical distance, with Cæsar's estimate. Cæsar gives no fractional parts, and the measure 8 Roman miles answers better than 9, and much better than 7, for the distance between the centres of the estuaries. I should fix it at $8\frac{1}{4}$ miles."

Ambleteuse as the Portus Superior, and had represented the distance between the two as eight miles. The Astronomer-Royal takes the Admiralty chart, and measures from the centre of the entrance to Boulogne to the centre of the entrance to Ambleteuse, and finds it about "four and a half nautical miles, or five and a half Roman miles," and adds, "I conclude that Boulogne and Ambleteuse will not be cited again as representing the Portus Itius and Portus Superior of Cæsar." Here as elsewhere the question is whether the Astronomer-Royal has rightly apprehended the meaning of Cæsar. The Astronomer-Royal would have the eight miles to indicate the distance by *sea*, whereas Cæsar, as I conceive, is giving the distance by *land*. I had treated the latter interpretation before as matter of course, but as the Astronomer-Royal resorts to the sea line I must state my reasons for adopting the road line.* The mention by Cæsar of the eight miles is introduced as follows:—He is giving an account of the manner in which the fleet was distributed amongst the army. The *eighty transports* which had been collected at Portus Itius were assigned to the infantry, *i. e.* the two legions which were to constitute the expedition. The few *long ships* or *triremes* were allotted to the quæstor, legates and prefects, and then he proceeds: "Huc accedebant XVIII onerariæ naves, quæ ex eo loco millibus passuum VIII vento tenebantur, quò minùs in eundem portum pervenire possent: has equitibus distribuit," iv. 22. Thus he is explaining why the eighteen vessels were appropriated by him to the cavalry. It was quite immaterial what was the distance by sea, for the eighteen transports were wind-bound, and could not

* I observe that Mr. Dougall (see *post*, p. 97) agrees with me in taking Cæsar to mean the road line.

reach him ; but as he could not dispense with the vessels, he had to consider what portion of his force could be most conveniently dispatched thither, and as the transports lay eight miles off he thought it best in order to save time to send thither his cavalry.

Assuming then that Cæsar is speaking of the road distance, we have now to ascertain what that is. Little reliance can be placed on the ordinary books of reference, as will be seen from the following table :—

Distance of Ambleteuse from Boulogne is, according to :—

Encyclopædia Metropolitana	-	9	miles.
Landmann's Gazetteer	- -	8	„
Johnston's General Gazetteer	6	„	
Gazetteer of the World	- -	5	„

In stating the distance to be just eight miles Roman, I had cited as my authority the eminent antiquary so celebrated for his recent discoveries in Egypt, Mariette, who, being a native of Boulogne, could not fail to know the exact distance, and I am glad to find on further inquiry that he is perfectly correct. I have before me the French ordnance map, the *Tableau de Guerre* for Boulogne, and measuring by the nearest road from the port of Boulogne, through Wimille and Slacq to the church at Ambleteuse, the distance is twelve kilomètres, that is, seven and a half miles English, or somewhat more than eight miles Roman, the distance which Cæsar assigns. The *Tableau de Guerre* must be regarded as a decisive authority, being the result of a Government survey, but I may add, that whenever I asked at Boulogne what was the distance of Ambleteuse from Boulogne, the answer invariably was twelve kilomètres, that is, seven and a half miles English, or eight miles Roman. To prevent mistake, the reader should be apprised that since the

Tableau de Guerre was published, and about five years ago, a new military road called Chemin Napoléon III. was made by and partly at the expense of the present Emperor, from Boulogne to Ambleteuse along the shore. This line, which does not appear upon the *Tableau de Guerre*, is of course much shorter, but can have nothing to do with the measurement of the road as it existed in ancient times.

VII.* I had argued, that if Napoleon I. found Boulogne the fittest port for equipping and assembling a fleet of invasion, Cæsar, another commander of equal military talent would probably be induced by similar motives to give the like preference. The Astronomer-Royal bids me “study the invasion of William the

* VII. “Mr. Lewin considers that Napoleon’s selection of Boulogne, as a port of embarcation, is a strong argument for adopting it as Cæsar’s port. I consider that it is no argument whatever, for this reason; that the dominant motive, which determined Napoleon’s selection of Boulogne, was wholly wanting in the instance of Cæsar. With Napoleon, every thing depended on the quickness, and therefore on the shortness of the passage. ‘Give me six hours’ command of the Channel, and England is mine,’ was the sentence of Napoleon. With Cæsar, any moderate delay, that did not actually starve his soldiers and sailors in their ships, was unimportant.

“But if Mr. Lewin really relies on the parallelism of instances, I can produce one which will not fail to direct his decision. What if I refer him to the history of a large armament; prepared in an age when weapons, ships, and navigation, without the compass, were similar to those in Cæsar’s time; collected at the mouth of the Somme; detained for about three weeks by north-west winds (as was Cæsar’s); sailing, at length, about six hours earlier in the day than Cæsar’s (because the moon was a week younger, and the tides were six hours earlier); the captain of the armament reaching the English coast after a passage of ten or eleven hours, and waiting for the remainder of the fleet; and, finally, debarking, in the afternoon, on the beach of Pevensey? If Mr. Lewin is really true to his own principles, let him study the invasion of William the Norman; and he will find ample *à priori* reason for believing that Cæsar took the same course.”

Norman," whose armament was "collected at the mouth of the Somme." One would suppose from this, that William had chosen the mouth of the Somme for his port of equipment and embarkation, as Napoleon did Boulogne. But William was not, like Cæsar or Napoleon, master of all France, but was merely Duke of Normandy. How happened it, then, as the mouth of the Somme, or rather the port of St. Valery, was not within his dominions that William made it his port of preparation? The fact is, that the place where the armament was fitted out and the fleet assembled and the army put on board was *not* at the mouth of the Somme but at St. Pierre de Dive, a little to the south-west of Havre, and within the limits of Normandy; and a public monument has lately been erected there in commemoration of the event. This was the general rendezvous, and hence the armament set sail for England, but encountered some violent gales and was obliged to take temporary shelter in the port of St. Valery at the mouth of the Somme. How then can putting into a port on the way from stress of weather be brought forward as a parallel case to the selection of Boulogne as the most suitable port for equipment and embarkation?

VIII.* Cæsar remarks that Kent was the common

* VIII. "We should suppose," says Mr. Lewin, "that Cæsar followed the usual track, and made for one of the ports which then, as now, were the most frequented, viz. Dover or Folkestone." This is not the manner of attempting debarcation on a country possessed by an enemy. Sir Ralph Abercrombie's troops did not attempt to force the harbour of Alexandria, but landed on the sands of Albukeer. Sir Arthur Wellesley made no attempt at Lisbon, but put his troops on shore on the Mondego Beach. The French landing in Algeria was at a distance from Algiers. In the expedition to the Crimea, no attempt was made on Sebastopol, Balaklava, or Kamiesch, but the boats were brought all abreast to the long beach near Old Fort."

landing-place for vessels from Gaul, “quò ferè omnes ex Galliâ naves appelluntur,” v. 13, and I had therefore suggested that Cæsar himself probably sailed for the same part. But the Astronomer-Royal objects that invaders do not generally make for the ordinary port, and instances Abercrombie at Aboukir, in Egypt; Wellesley at Mondego, in Spain; the French in Algeria; and the French and English in the Crimea. This, no doubt, is true in general; but in all the cases enumerated the invaders had charts and maps which gave them a perfect knowledge of the country; but Cæsar tells us that he could get no information about the coast of Britain (iv. 20), except what he gleaned from Volusenus, who was only absent from the army five days (iv. 21), and whose report, therefore, must have been meagre enough. Cæsar also, though prepared for opposition, did not expect to meet with it; for, while he was yet in Gaul, very many states of the Britons had sent over envoys, and tendered their submission, with an offer of hostages, and Commius, the partisan of Cæsar, had accompanied them back with a message from Cæsar that he would soon follow in person (iv. 21). It was not therefore to be supposed that his very landing on their shores would be disputed, and, when it was so, Cæsar complained of it as of a breach of faith: “Cæsar questus, quòd, quum ultrò in continentem legatis missis pacem a se petissent bellum sine causâ intulissent,” iv. 27. However, I am satisfied that even had he anticipated resistance, he would not have altered his plans; for in his second invasion, when he could not doubt that his debarcation would be opposed, he nevertheless steered for the very place where he had disembarked the year before: “Ut eam partem insulæ caperet, quâ optimum esse egressum

superiore æstate cognoverat," v. 8. One reason, perhaps, was, that Cæsar in Britain depended for his supplies from Gaul, and he had left Labienus in Gaul for the very purpose of providing for the commissariat: "P. Sulpicium Rufum legatum cum eo præsidio, quod satis esse arbitrabatur, portum tenere jussit," iv. 22. "Labieno in continente . . . relicto, ut portus tueretur, et rei frumentariæ provideret," v. 8; "frumentum his in locis (Britain) in hyemem provisum non erat," iv. 29. It was therefore of paramount importance to secure the nearest and most convenient ports of communication between the two coasts.

IX.* I had referred to Cæsar's *montibus* (iv. 23) as agreeing better with the cliffs between Dover and Folkestone than with those at Hastings, but the Astronomer-Royal thinks otherwise, inasmuch as from the latter, which are lower, a javelin could be better aimed. Cæsar says nothing about *aiming* the javelin, but only that the sea was hemmed in by mountains, so close, adeo angustis, that a javelin could be thrown from the height to the shore, in littus adjici, iv. 23; and nothing

* IX. "In regard to Cæsar's "montibus," as I have said elsewhere, our interpretation must be guided by consideration of the character of place under which an officer would think of attempting to land. It must also depend upon the possibility of aiming a javelin from the heights. Both considerations exclude such lofty cliffs as those of Dover and Folkestone.

"I am surprised at the citation of Cicero, and the illogical inference from it. *Because* an officer who joined his regiment B.C. 54 says "there are wondrous high cliffs on the coast of Britain," *therefore* (says Mr. Lewin), Cæsar, in the year B.C. 55, attempted to land under those very cliffs. It is most probable that (assuming, as I do, that Cæsar landed at Pevensy) the precipices which Q. Cicero had in his mind were the stupendous cliffs at Beachy Head, which are within two miles of the landing-place, but which had no influence on the circumstances of landing."

can more exactly describe the bluff cliffs between Dover and Folkestone, which rise perpendicularly from the shingle, and their greater height, as giving the more force to the missile, would be an advantage. Besides, as Cæsar had gone to the Morini, the Pas de Calais, to prepare for the expedition, and sailed, as I contend, from Boulogne, he must constantly from the heights of Gaul have looked upon the inviting white cliffs of Britain between Folkestone and the South Foreland. Is it not the more natural supposition that, ignorant as he was of the British line of coast, he should make for the shore which he had daily watched, rather than for Fairlight Downs, of which it does not appear that he even knew the existence?

The Astronomer-Royal is surprised at "the citation of Cicero and the illogical inference from it. *Because* an officer who joined his regiment B.C. 54, says, "There are wondrous cliffs on the coast of Britain, *therefore* (says Mr. Lewin), Cæsar, in the year B.C. 55 attempted to land under those very cliffs." I see nothing illogical in this. I was quite aware, and particularly pointed out that Q. Cicero was "one of the generals in Cæsar's army on the *second* expedition," page 31. But as Q. Cicero was referring to the coast where the second debarcation had been effected and the second debarcation was at the same point as the first, as the Astronomer-Royal himself admits, the remark of Cicero was applicable to the first as well as to the second. I cannot give a better answer than in the very words of the Astronomer-Royal himself. "I understand," he says, "that Cæsar landed at precisely the same point in the two expeditions, and shall apply to one point indiscriminately the remarks suggested by the occurrences in both expeditions."

X.* Cæsar, on his second return from Britain, put to sea soon after 9 P.M. in a calm, and reached Gaul at

*X. "Cæsar records that, on the return from the second expedition, 'summam tranquillitatem consecutus,' he approached the coast of Gaul ('attigit' in Cæsar does not mean that he reached it) in about eight or nine hours; and Mr. Lewin, inferring from the expression describing the weather that the fleet was rowed all the way, considers that the distance of the Somme from Pevensey was too great to be passed over by rowing in eight or nine hours. The reply to this will require some consideration of the character of ancient navigation.

"We are so much struck with the importance of the oars in ancient nautical battles, and in other critical circumstances, that we almost forget that, in general navigation, sails played a much more important part. Yet, if we look in the Iliad (which I cite without hesitation as accurately describing the realities of the age), we find that the galleys at that time were borne along by sails on the open sea; but that, on entering a port, the sails were furled, and then only were the oars used to bring the vessels to their moorings. In what may be called the trireme period, though oars were used exclusively in the shock of battle, yet the exploit by which Conon hoped to cripple the victorious Spartan fleet after the affair of Ægospotami was the carrying off their mainsails. For the Roman times, we find little information in Cæsar (though in contrasting the ships of the Veneti with his own, he adverts to the difference of the materials of which the sails were constructed); and the notices in other authors are very much scattered. On the whole, I am inclined to refer to Virgil, in his account of the voyages of Æneas, as giving a better account of navigation in Cæsar's time than is to be found elsewhere. Several remarks in the Æneid convince me that Virgil was a practical sailor. So far as his poetical bent would carry him, he would, I suppose, incline to the row-boat side."

The Astronomer-Royal then adduces some supposed illustrations of his views from Virgil, and then proceeds thus:

"Mr. Lewin has been led to the supposition of rowing by interpreting 'summam tranquillitatem' to mean 'dead calm.' But there are two elements to which 'tranquillitas' can apply, the air and the sea,—and if we consider which of these elements alone, in a disturbed state, is more likely to be injurious, we shall soon arrive at

break of day, or 5 A.M. “summam tranquillitatem consecutus secundâ initâ quum solvisset vigiliâ, primâ luce terram attigit,” v. 23. From this I had drawn the inference that as it was a calm the vessels were rowed, and that as the voyage occupied eight hours only, it could not have been from Pevensey to the Somme, a distance of more than sixty statute miles. To meet this argument the Astronomer-Royal answers that the vessels were *under sail*, for that in the most ancient navigation, as exemplified in the Iliad, oars were used only “on entering a port;” that in the trireme period “oars were used exclusively in the shock of battle,” and that “for the Roman times we find little information in Cæsar, and the notices in the other authors are very much scattered,” but he refers more particularly to Virgil, whom he calls a “practical sailor.” But the testimony of all the poets in the world would not weigh against the narrative of Cæsar himself, who tells us first of all that *these very vessels* had been specially made for rowing (*actuariæ*); and in the next place that they were not only *made* for rowing, but that they were also *used* for rowing. Thus, in Cæsar’s second voyage

a conclusion. If, as frequently happens after a heavy gale, there had been a high swell without a breath of wind, the over-loaded fleet would have been in great danger. On the other hand, if with smooth water there had been a brisk breeze, the steering would have been good, the course would have been held well, the voyage would have been easy,—and, the fresher the breeze blew, the better would everybody have been pleased. Now for this we have only to suppose a *stiff north-west wind*, capable of carrying the ships seven or eight miles an hour; for several miles after leaving Pevensey the water would be smooth as a mill-pond; after that, there would be a little sea, but with the easy motion of a vessel going nearly before the wind it would scarcely be felt; and the voyage would be most tranquil and pleasant. This, I believe, is exactly what happened.”

to Britain, he was drifted by the tide out of his course, and at daybreak, or a little before 4 A.M. they rowed the fleet to the former landing-place, which they reached at noon: "Ortâ luce, sub sinistrâ Britanniam relictam conspexit. Tum rursus æstûs commutationem secutus, *remis contendit*, ut eam partem insulæ caperet, quâ optimum esse egressum superiore æstate cognoverat. Accessum est ad Britanniam omnibus navibus meridiano ferè tempore," v. 8. Here, then, we have these vessels rowed for eight hours together in one direction, and if so, they could surely be rowed for eight hours together in the opposite direction. If poets are to be cited as authorities, why does not the Astronomer-Royal refer to Lucan, who addressing himself not loosely to the practice of navigation in general, but to this very expedition of Cæsar, speaks of the fleet not as under sail but as impelled by oars.

"Hæc manus ut victum post terga relinqueret orbem,
Oceani tumidas *remo* compescuit undas."—*Phars.* lib. i. v. 369.

But let me concede, for argument's sake, that the vessels were not rowed, but were under sail, could they even then have run from Pevensey to the Somme in eight hours? Captain Beechy remarks that "seven miles per hour would be reckoned a good rate of sailing for ships of the present day (Smith's Voyage and Shipwreck of St. Paul, p. 179); and the Astronomer-Royal had observed, in his original essay, that "the distance from the mouth of the Somme to Hastings, is about fifty-two nautical miles, and that to Dover about fifty-five. These are such distances as may fairly be traversed in *ten hours* with *idonea tempestas*." How then, I ask, could the voyage have been made in *eight*

hours without the *idonea tempestas*, and in a calm. We must also bear in mind the defective state of ancient navigation, and that Cæsar's vessels were, to use the Astronomer-Royal's own expression, "flat-built," *i. e.* not constructed for fast going, but broad and barge-like: "Ad onera, et ad multitudinem jumentorum transportandam, paullò latiores, quàm quibus in reliquis utimur maribus," v. 1; "vectoriis gravibusque navigiis," v. 8: not only so, but Cæsar, having been disappointed of the additional transports expected from the Continent, was obliged to crowd the vessels he had to the great inconvenience of the troops on board? How then could these flat-built, overloaded transports have accomplished the distance of sixty miles (statute) in eight hours? The Astronomer-Royal says they could, for "we have only to suppose a *stiff, north-west wind.*" But this is the very thing that cannot be supposed, unless the Astronomer-Royal would translate *summa tranquillitas* by "a stiff, north-west wind!"

XI.* I had asked how it happened, if Cæsar landed at Pevensey which was out of the common course, that the Britons, nevertheless, were there to oppose him?

* XI. "Mr. Lewin raises the question, How it could happen that the Britons expected the landing at Pevensey. To this I reply, that Pevensey is known now, and probably was known for many generations before Cæsar's time, as the weakest point in the whole circuit of Britain. In the great war of the beginning of this century there were erected for its defence thirty-six martello towers. (Upon the edge of Romney Marsh, to which Mr. Lewin calls particular attention, there are only sixteen.) Cæsar, who never made a step in ignorance, steered, as I conceive, for Pevensey Beach, but was drifted (as in the following year) by the tide under the Hastings cliffs. The Britons had probably expected him at Pevensey; but, on seeing him approach towards Hastings or Bexhill, immediately moved in that direction."

The Astronomer-Royal answers that, "Pevensey was the weakest point of Britain," and therefore that Cæsar, "who never made a step in ignorance, steered for Pevensey Beach;" and that the "Britons had probably expected him at Pevensey." Now this assumes several things which are unsustainable: viz. that Pevensey was at *that* time the weakest point, whereas, being backed by the Andred Forest, it was less favourable for a landing than Romney Marsh, just out of the Andred Forest; and further, the argument implies that Cæsar *knew* the nature of the southern coast, whereas he was probably acquainted only with the part between Romney Marsh and Deal, for he could procure no information whatever (iv. 20), except what had been gathered by Volusenus during a five days' absence. Again, how, if Cæsar fixed on Pevensey, could the *Britons* have known his intentions? for it is very unlikely that he should have published them abroad, more particularly as he did not communicate his plans, in part, even to his own officers until the last moment, on arriving in Britain (iv. 23). But supposing, as must have been the case, that the Britons were ignorant of Cæsar's intended movements, they would naturally conclude that he would land (not in Sussex, but) in Kent, for the reasons, 1. that this part of the coast was the nearest to Gaul; 2. that Kent was the part almost universally frequented by ships from Gaul (v. 13); 3. that Cæsar's naval preparations had been made amongst the *Morini* (iv. 22), the people just opposite to Kent; 4. that, even if Cæsar had equipped his fleet, as the Astronomer-Royal conjectures, at the mouth of the Somme, Romney Marsh would be nearer than Pevensey to the Somme, and was in itself more favourable for landing, as not shut in by the Andred Forest.

XII.* I had made it an objection to the theory of Pevensey, that Cæsar in that case must have landed in the heart of the Andred Forest. The Astronomer-Royal answers that William the Conqueror disembarked at Pevensey, and if William did, why not Cæsar? The why not, is that from Cæsar to William was an interval of 1000 years and upwards, and it cannot be conceded that the forest remained at the end of that period in the same condition as at the commencement. The Romans, a highly civilised people, had been in possession of this part of Britain more than 360 years, and clearances must have been made during their occupation. The Saxons, also, who followed them, must have contributed something to the same end. Had Pevensey Marsh been the *only* practicable landing-place, Cæsar might have been willing to encounter the difficulties; but Romney Marsh was more favourable, and nearer to the port of embarkation, even assuming it to have been the Somme.

* XII. "Mr. Lewin says, 'Is it not also strange and unaccountable that Cæsar should have landed in the heart of the dense forest of Anderida?' I reply by the question, 'Is it not strange and unaccountable that William of Normandy should have landed in the heart of the dense forest of Anderida?' I assign the same road to both. As far as we know, the character of the forest had not sensibly altered in the interval. In my paper, I have sufficiently recognised the woody character of the ground east of the Roberts-bridge road, and Mr. Lewin, if he reads the account of the conflict of Battle, will find abundant mention of the woods. But this is different from forest, where there are no roads or habitations, and where wood grows neglected upon soils so barren that they will rarely pay for the trouble of clearing. Such is the character of the elevated ground in which the Rother, the Cuckmere, and other small rivers, have their sources. At the present time, that region is called by the people of the country 'The Forest,' but I believe that the same term is never applied to the country east of the road."

XIII.* To prove that the camp of Cæsar was in Kent I had appealed to the fact that the orders of Cassivelaunus to assault the camp were sent to the four kings of *Kent* (v. 22). The Astronomer-Royal accounts for it by saying that "the greater part of Sussex was occupied by the Andred Forest" (which is what I had been contending for), "and the population of Kent was probably many times as numerous as that of Sussex." The latter fact does not appear from Cæsar, who remarks only that Britain in general was densely peopled (v. 12), and as the Astronomer-Royal thinks that even in Cæsar's time the Andred Forest did not extend eastward beyond Robertsbridge, there is no reason why that part of Sussex should not have been at least sufficiently populous to furnish a contingent to the British force. As the men of Kent were distinct from the Regni, or men of Sussex (which is not disputed), the natural inference to be drawn from the assault of the camp by the *men of Kent* surely is that *the camp was in Kent*.

XIV.† Cæsar, on his second voyage to Britain, started

* XIII. "Mr. Lewin thinks it a capital objection to the landing at Pevensey that the chieftains of Kent (instead of Sussex) were directed to attack the naval camp. The distance of that camp at Pevensey from the boundary of Kent is perhaps, in a straight line, 13 miles, no very great march for a patriot. The reason for calling on the men of Kent instead of those of Sussex is obvious: the greater part of Sussex was occupied by the Andred Forest, and the population of Kent was probably many times as numerous as that of Sussex."

† XIV. "When Cæsar was drifted eastwardly by the tidal current, he remarks that he found the coast of Britain on his left hand. And Mr. Lewin actually interprets this as if Cæsar had kept his ships' heads strictly in the same azimuth, and that the 'left hand' had relation to the larboard side of the ship, and therefore that he had passed the Straits of Dover. I cannot conceive that the expression refers to any direction but to that of the drift; it asserts that, in reference

at midnight, and being drifted by the tide, he, when morning broke, beheld Britain on his left hand. This to me (as before to the learned D'Anville) was a convincing proof that the vessel with her head towards Britain had been carried by the current off the South Foreland. In that case the sea only would be visible on the right hand, and Britain would be observed on the left. The Astronomer-Royal answers that "left" in this passage has reference to the tidal current,—in other words, that Cæsar having remarked the current, and turning his face in the same direction saw Britain on his left hand. The truth, of course, is, that Cæsar did not first discover the drift, and then take the bearings of the land, but seeing Britain on his left hand, discovered the drift. The head of the vessel must have been turned towards Britain in any case, for Cæsar was sailing for that coast; and the vessel, even if committed to the action of the current only, would drift broadside to the stream, *i. e.* with the head towards Britain. Besides what a truism is otherwise fastened upon Cæsar, *viz.* that a person going up Channel, and looking in the same direction with the tide, would have Britain on his *left* hand, as if by any possibility he could have Britain on the *right!*

XV.* The only remaining question is this:— Accord-

to the direction of tidal current, the coast was on the left hand. It is therefore indecisive as to the place."

* XV. "Mr. Lewin has fixed upon Challock Wood as the post defended by the Britons in their battle at the second invasion, and the Wye (here a very petty rivulet) as the river concerned in the defence. It is perfectly evident in Cæsar's account that the river was the important part of the defence; and I have no hesitation in saying that the Wye here presents no aptitude for military defence, no singularity of any kind, which could give it the most trifling value in the struggle with Cæsar. In this respect it differs very widely from

ing to my hypothesis Cæsar, on his second invasion, landed in Romney Marsh, opposite Limne, marched inland to Wye on the Stour, and then crossing the river, drove the Britons from their stockade in the wood, at Challock, on the opposite hill. Not a few arguments in support of this are conceded by the Astronomer-Royal, for he admits that Romney Marsh is "very favourable" for a debarcation; that Wye is twelve miles from the sea-shore at Limne; and that Canterbury was then in existence, so that the Britons would naturally, on retiring from Romney Marsh, pursue the road to their capital, and stockade the wood which commanded the defile leading to it. (I may here add that the circular hill at the end of the wood towards Godmersham is remarkably streaked by several successive tiers of lines, and is itself free from wood. This may have been the position of the British war-chariots, and the streaks referred to may have been at the same time ramparts against assault and roads for descent to the cars). To this theory the Astronomer-Royal offers two objections. In the first place, he says, that "in Cæsar's account the river was the important part of the defence," and that the Stour (which, in his original Essay was a "*small river*," and is now a "*very pretty rivulet*," could not have had "the most trifling value in the struggle with Cæsar." I have repeatedly seen the Stour at Wye, and I have more than once

the place which I have assigned (Robertsbridge), where a comparatively narrow ford crosses a river that spreads on both sides of the road into broad soft marshes (probably river in that age), and where the hill-banks of the marshes are generally steep. The existence of such a place, on the road which Cæsar must have taken (as coming from Pevensey), and at the distance which Cæsar has specified, presents one of the strongest evidences for deciding on locality that I have ever seen."

seen the Rother at Robertsbridge, and I have no hesitation in saying that the Stour always appeared to myself of at least twice the magnitude of the Rother. The quantity of water at Wye may be judged of in some degree by the fact, that in the month of September 1861, when I last visited it, the mill had constantly at work four pairs of stones from 5.30 A.M. till 8 P.M., except for a short time at noon. However, I do not consider the relative magnitudes of the two rivers very material, because Cæsar, as I conceive, does *not* make the river "the important part of the defence." On his debarcation he first learned from some captives where the enemy had posted themselves, "quo in loco hostium copiæ consedissent," v. 9. He then, after a twelve miles' march, and at break of day, came in sight of their position, which Cæsar describes as a stockaded wood. Upon Cæsar's approach the Britons did not march down in force to the river, but only sent the *cavalry and war chariots* to harass the enemy in crossing the stream and ascending the hill: "*Illi equitatu atque essedis ad flumen progressi, ex loco superiore nostros prohibere, et prælium committere cœperunt,*" v. 9. And on the Roman side, not the legions, but the cavalry only, were engaged: "*Repulsi (the Britons) ab equitatu,*" v. 9. In the same way, after Cæsar had been recalled to his fleet, and when he again returned to Wye, the Britons harassed him along his whole march with their *cavalry and war chariots*: "*Equites hostium essedarique acriter prælio cum equitatu nostro in itinere conflixerunt,*" v. 15. It would therefore appear that the Britons, though they sent down their skirmishers to the river, meant to make their final stand, as they did, in the stockade; and it was not until after a desperate struggle that the Romans were able to dislodge them.

In the next place the Astronomer-Royal insists that the river referred to by Cæsar was the Rother, inasmuch as at Robertsbridge, "a comparatively *narrow ford* crosses a river that spreads on both sides of the road into *broad soft marshes* (probably river in that age), and where the hill banks of the marshes are generally steep;" and in the "Archæologia" he remarks that Cæsar, in advancing from Pevensey to Robertsbridge, would have on his left the forest of Andred, and on his right "a partially wooded country, terminated by the impassable marshes of the Rother," and that at Robertsbridge only, where "the sound grounds on the north side and on the south side approach nearer than anywhere else," could Cæsar have advanced — that Robertsbridge was in short "the gate of Britain." In order to form a judgment myself of the capabilities of Robertsbridge as a defensive post, I visited it at about the same season that Cæsar was in Britain, that is, in August. As to the forest which Cæsar would have on his left, *i. e.* to the west, there is no observable difference at present between the west and east; and I may add by the way that even in the days of the Saxons the Andred Forest extended as far as Romney Marsh, as we learn from the Saxon Chronicle, A.D. 893. As to the "impassable marshes" on Cæsar's right, it is true that at Robertsbridge, a corruption of Rotherbridge, there are no less than seven bridges, from which the place takes its name; but at four of them only was any water at all. At the other three the channels were perfectly dry. Where water was running so far from any "embaekment," preventing its overflow, it ran along the bottom, many feet below the natural surface of the ground. As when Cæsar was in Britain the second time it was an unusually dry summer (v. 24),

any marsh (to judge from present appearances) would be quite out of the question. The streams, such as they are, unite at a point about half way between Robertsbridge and Salehurst, and even below the confluence at Salehurst, I walked across the Rother, without wetting more than the soles of my shoes.* As to the nearer approach of the sound grounds at Robertsbridge than elsewhere, I observed no ground that was not *sound*, but if the *high* grounds as opposed to the *flats* be referred to, they are in much greater propinquity at Salehurst than at Robertsbridge. The "narrow ford" at Robertsbridge and the "broad soft marshes" on each side were not to be seen. In short, an inspection of the ground at Robertsbridge dissipated at once the theory which the Astronomer-Royal had suggested to my imagination. Robertsbridge, so far as I am capable of forming a judgment, does not possess the military advantages attributed to it.

Having answered all the objections of the Astronomer-Royal, I shall now advert to some facts which escaped my notice when I wrote my Essay, but which, I think, materially affect the Astronomer-Royal's theory. According to the Astronomer-Royal, Cæsar first anchored off the Hastings cliffs, and then sailed eight miles to Pevensey Marsh. The nature of this part of the coast is as follows:—From Hastings *eastward* to Cliffs End, a distance of five miles, are the Fairlight Downs, and these, rising to a maximum height of 240 feet, are sufficiently imposing to answer the description of "montibus angustis." From Hastings *westward* to

* I was also there on one occasion in midwinter, and the stream was only ankle deep, and there was a cart-road across it in constant use. There are, of course, occasional floods, and then the scene is very different.

the flat of Pevensey Marsh (say at Pevensey Sluice) is a distance of about eight miles English, or nearly nine miles Roman. The intervening space has occasionally low cliffs, as at Bexhill, but would not at all answer to the "montibus angustis," so that Cæsar could not have *anchored* opposite them. Neither, on the other hand, as this part is undulating, can it be considered the planum or flat shore on which Cæsar *landed*. If, therefore, Cæsar approached this coast at all, he must have anchored, in the first instance, somewhere off the high cliffs between Hastings and Cliffs End; but if so, eight Roman miles would not carry him so far as Pevensey Marsh. The line of coast, therefore, does not, to my apprehension; tally in this respect with Cæsar's account.

However, the matter to which I wish more particularly to draw attention is the nature of the tidal currents at Hastings. The argument of the Astronomer-Royal is this: first, that Cæsar arrived off the Hastings Cliffs, which he says, "in my judgment, appear to suit Cæsar's account better than those of Dover or Hythe"; secondly, that Cæsar reached Britain on the third day before the full moon, *i.e.* (as full moon was on the night of the 30th August, B.C. 55), on the 27th August, B.C. 55. "The day of Cæsar's landing," he says, "may be the second, third, or fourth day before the full moon. I will consider it as the third"; and then, thirdly, after laying down that the turn of the tide on that third day would be "two and half hours earlier than on the day of the full moon, he cites the authority of Sir F. W. Beechey as to the turn of the tide off Hastings on the day of full moon, who states that "*close in shore* off Hastings the stream turns to the west at 11.0, but the turn becomes later as the distance off shore increases, and at *five miles' distance* the stream turns to the west at 1.0."

In other words, as I understand it, for a mile off shore the stream turns at 11.0 ; at two miles off shore at 11.30 ; at three miles off shore at 12.0 ; at four miles off shore at 12.30 ; at five miles off shore at 1.0 ; and at six miles off shore at 1.30. On the third day before the full, this turn of the tide would be, according to the Astronomer-Royal, two and a half hours earlier, *i.e.* close in shore at 8.30 ; at five miles off at 10.30 ; and, consequently, at six miles off at 11.0 : and the Astronomer-Royal concludes that, "If we suppose Cæsar to have first attempted the neighbourhood of St. Leonards, the tide, which *a few miles* from shore had turned to the west *at 1.10*, was, at 3.0, running in full stream to the west." Now, by assuming the tide, on the third day before the full moon, to be at 11.0, the Astronomer-Royal places Cæsar's anchorage at no less than six nautical or nearly seven statute miles from the shore. But who can believe that Cæsar was at this distance? He says that he had *reached Britain*, and that he *saw* the forces of the enemy *arrayed* upon the heights, and he describes the *very spot* with great minuteness. "*Britanniam attigit, atque ibi in omnibus collibus expositas hostium copias armatas conspexit. Cujus loci hæc erat natura,*" &c. iv. 23, and then, not finding that point a suitable landing-place ("Hunc ad egrediendum nequaquam idoneum arbitratus locum," *ib.*), he weighed anchor and advanced, evidently along the shore, eight miles further, until he reached an open level ; *circiter millia passuum viii ab eo loco progressus,*" &c. *ib.* Is not all this at variance with the Astronomer-Royal's assumption that Cæsar anchored "a few miles from shore," *i.e.* as appears from the context six or seven miles from the shore?

The late Camden Professor of Ancient History at Oxford, Dr. Cardwell, in his article on the subject in the third volume of the "Archæologia Cantiana," makes

Cæsar anchor (and I agree with him) about half a mile from the shore. I will concede, however, that Cæsar's moorings were a mile from the shore ; and what, then, are the facts? When last at Hastings I made very particular inquiry as to the tidal currents there, and was surprised to find how materially they differed from those off Dover or Folkstone. At the latter places the stream continues to run *east* for about three and a half hours after high water ; but at Hastings the current turns *west* about the *very same time* with high water, and (including slack water) runs west for about six and a half hours, and then runs east for about six hours. At what time, then, was it high water on the day of Cæsar's landing? The full moon was, at 3 A.M. on 31st August, and according to the tide-tables, high water at Hastings at the full of the moon is at 10.53. We may assume, therefore, that the high water next preceding the full moon, viz. in the evening of 30th August, would be about that time. But high water in the morning of 27th August would be seven tides earlier, *i. e.* 2.48 earlier, or about 8 A.M. At this time, therefore, the current off Hastings would turn west, and would run so for the next six and a half hours, or until 2.30 P.M., and would then turn east. At 3 P.M. therefore, Cæsar, if he went with the tide, must have proceeded, not *westward* towards Pevensey Marsh, but in exactly the *opposite direction*. To guard myself as much as possible against error, I wrote to Captain Fennings, a resident at Hastings, who possesses great nautical experience, and, as professor of navigation, combines with it the advantage of science, and he was courteous enough to give me the information I desired, and for which I beg to offer my best thanks. The questions and answers were *verbatim* as follows :—

QUESTIONS.

1. "At what time does the current turn west a mile from the shore between the Hook" (near the eastern end of the Hastings Cliffs) "and Pevensy? Before high-water? or after it? or at the same time with it?"

2. "How long usually is it slack-water?"

3. "When does the current turn east and how long does it usually run in that direction?"

4. "Is there any and what difference between the currents west of the Hook and the currents between the Hook and the Ness?"

5. "Many years ago some transports lay off the cliffs between the Hook and Hastings about a mile from the shore. It was high-water about 8 A.M. They started at 3 P.M. and went in the same direction as the tide. Which way did they go? Up Channel or down Channel? East or west?"

ANSWERS.

1. "The tide turns west about high-water a mile from the shore between the Hook and Pevensy."

2. "In spring-tides it is slack-water half an hour, and one hour in neap-tides."

3. "The flood or current begins to run eastward up Channel when it is low-water on shore and runs six hours, between the Hook point and Pevensy a mile from the shore."

4. "The tide runs three hours later between the Hook and Dungeness than it does to the westward of the Hook."

5. "If it was high-water at 8 A.M. about a mile from the shore between the Hook and Hastings, it would be low-water, slack, or say the young flood at 3 o'clock P.M. Therefore, when the ships weighed anchor at 3 P.M. they proceeded with the flood up Channel to the eastward."

Among these questions I had omitted to ask how long the current continued to run west, and though the fact might be collected from the answers to the other queries, I again troubled Captain Fennings by requesting to be informed, as each high water is twelve hours twenty-four minutes later than the preceding, how the interval of twelve hours twenty-four minutes was to be

distributed as between the current westward and the current eastward? and his reply was as follows: "In reference to dividing the tides, I have consulted the oldest fishermen, also Captain William Phillips, the oldest shipmaster in Hastings. They agree with me that the flood a mile off shore runs eastward six hours, and the ebb runs west six hours twenty-five minutes." This made no allowance for slack water between the two currents, and as to this he writes, "In spring tides it is slack water about half an hour, and in neap tides about one hour. We have four slack waters in twenty-four hours. Therefore we must take half an hour from each eastern or western current in spring tides, and one hour from each eastern or western tide in neaps." In other words, the eastern current (including slack water) runs six hours, and the western current (including slack water) runs six hours twenty-five minutes. But at every change of the current from east to west, or from west to east, there is slack water, during which there is no positive current. This interval, amounting to half an hour in springs, and one hour in neaps, is to be deducted. Thus, supposing it to be high water at the springs at 11 A. M., the current at 11 A. M. turns west and runs so till 4.55 P. M. It is then slack water till 5.25 P. M. and then turns east and runs so till 10.55 P. M. and then it is slack water again till 11.25 P. M.

If this information, so kindly communicated by Captain Fennings, be correct, it is clear that upon the footing of the tidal current alone, independently of other objections, the theory that Cæsar anchored off the Hastings Cliffs and then sailed to Pevensey Marsh, cannot be maintained.

REPLY TO THE REMARKS OF THE LATE
CAMDEN PROFESSOR OF ANCIENT HIS-
TORY AT OXFORD.

IN the third volume of the “Archæologia Cantiana,” a distinguished scholar, the late Camden Professor of Ancient History at Oxford, Dr. Cardwell, advanced some objections to my theory that Cæsar, upon his invasion of Britain, embarked at Boulogne, and landed on Romney Marsh. The opinions of one who occupied so prominent a position in the world of letters cannot be passed over in silence, and as, though withdrawn from us, he still lives in his works, I now proceed to a reply.

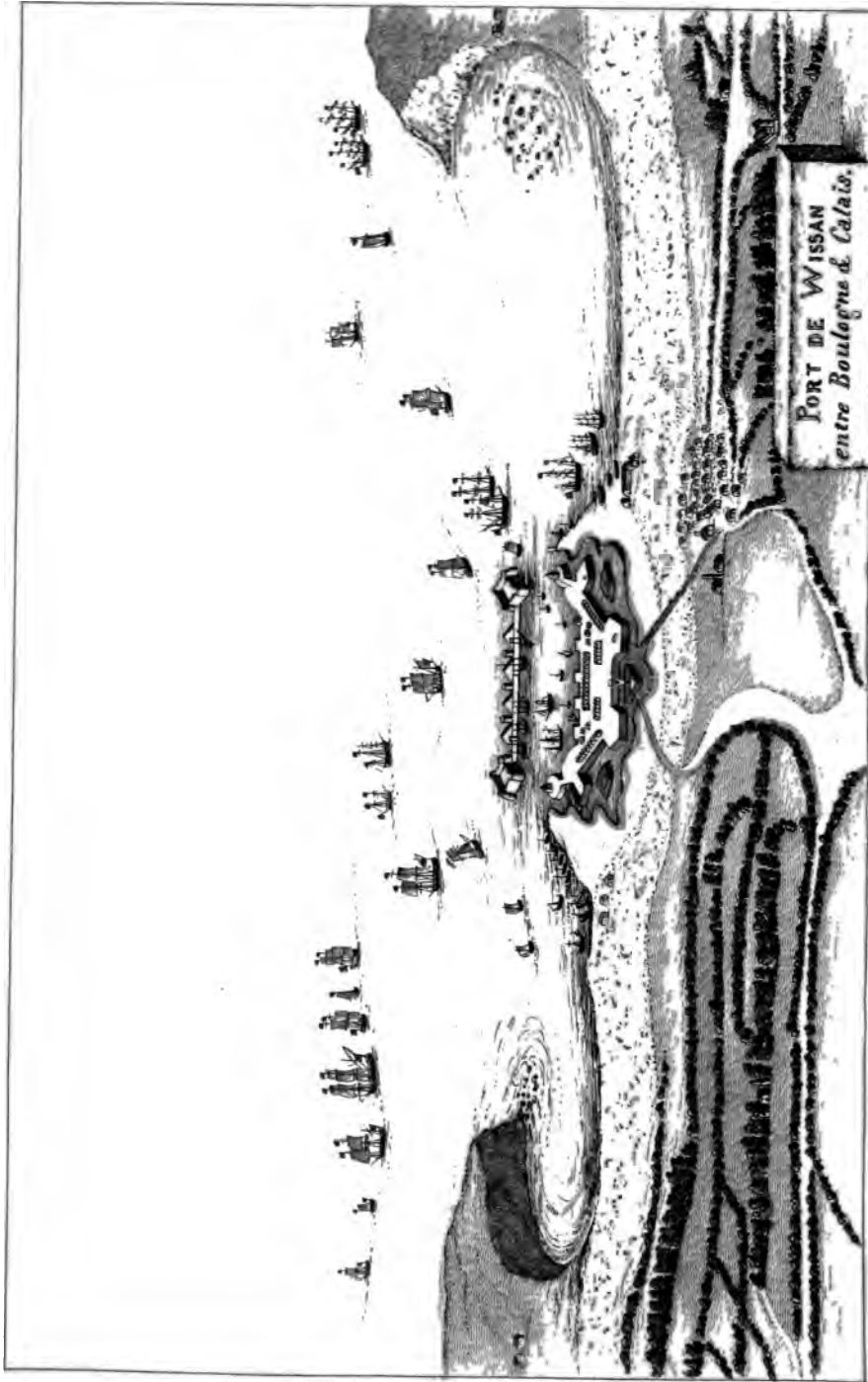
The embarcation is assigned by the Professor to Wissant; but he does not enter upon any formal argument upon this head, nor shall I here contend at length to the contrary. But as Wissant is somewhat out of the way, and seldom visited, I may take the opportunity of stating the result of my own personal observation. In the Bay of Wissant the sea is continually throwing up a quantity of fine white sand, whence the name of Witsand (Dutch), corrupted into Wissant. When the sea retires the sand dries, and

the wind lifts it upon the ledge of the seaboard. Wherever there is any cleft or fissure, the increased force of the wind in the gully carries up the sand, and lodges it in a heap on the upper surface. This heap soon becomes a hill, and in the course of time a succession of sand hills forms a kind of rampart round the bay. It is a mistake to suppose that this part is a gently sloping shore upon which ships could be drawn up in safety, for they could not be transported over the belt of sand, and, lying before it, they would be exposed to the inclemency of the sea.

The village of Wissant stands on a little eminence about half way along the bay, and between it and the sand ridge is the old port now quite dry, and half filled with sand, but the configuration of it may still be traced. I was informed by a native that it was two kilometres, or one mile and a quarter long from west to east, and half a kilometre, or two furlongs and a half broad from north to south. A stream which has water enough to turn a mill runs through the village into the port, and thence forces its way through an opening into the sea. First appearances would lead one to suppose that the belt of sand has been the bulwark of the port on the north, and that the only entrance had been where the watercourse now runs; but in the Museum at Boulogne is a painting (copied from one preserved among the archives of Wissant) representing the port as a little inlet or bay scooped out of the shore, having a breakwater in front of it, and open at each end, so that a few ships could find shelter behind the breakwater, and others at the east or west end of the port, according to the quarter of the wind.* The tradition is that the old town of Wissant stood at the east end

* A copy of the plan is annexed.

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PORT DE WISSAN
entre Boulogne & Calais.

of the port, and that it did so, at least in part, is evident, for an excavation had been recently made when I was there, and the walls of houses were visible at the depth of twelve feet. About a quarter of a mile to the south of the village is what is called Cæsar's camp, seated on a chalk hill (though there are no traces of chalk between it and the sea), and consisting of four successive tiers of ramparts. They were all earth-works, and no remains of masonry were traceable. The inmost and most elevated circle was, speaking from recollection, about thirty yards across. The impression which the whole leaves is not that of a Roman camp, but of a mediæval fortress. A plan of the camp and other military works will be found in M. Henry's "Essay on Boulogne."

The port of Wissant was never heard of until seven or eight centuries ago, and flourished only for a very brief period.* In fact, the line of shore, consisting of those ever-moving heaps of sand, does not admit of any permanent celebrity. I should doubt whether in the time of Cæsar Wissant was a port at all; but, supposing its existence, it never could have contained the fleet with which Cæsar sailed on his second expedition. As Cæsar certainly started from *a port*, and not from *a bay*, and the port of Wissant was of such narrow dimensions, it could not have been the Portus Itius. There are also the two following objections to Wissant:—First. Cæsar tells us that the passage from Portus Itius to Britain was about thirty miles: "transjectum circiter millium passuum xxx." Bell. Gall. iv. 30, whereas the distance of Wissant from Britain is only about twenty miles. Secondly. When Cæsar returned from Britain the first time, two of his transports were drifted a little

* Somner's "Roman Ports," p. 33.

to the south of Portus Itius : "Paullo infra delatæ sunt," iv. 37 ; and when the troops were put on shore, and were making their way back to Portus Itius, they were attacked by the Morini, and only saved after a four hours' fight by the arrival of some cavalry, and these Morini were chastised the next day, because it is said they could not take refuge as they had done the year before in the *marshes which were then dry*. Supposing Wissant to be Portus Itius, where are these marshes, as none are to be found at present between Wissant and Boulogne ? But assuming, not Wissant, but Boulogne to be the Portus Itius, we meet with the marshes where they should be, viz. a little to the south of Boulogne. I visited that part in the month of September 1861, in a dry season, and the marshes were still very distinguishable between Camiers and Dannes. There were several large pools of stagnant water, with a low flat tract many miles in length, which would clearly be a marsh in a rainy season. In fact, the whole country, from Etaples to Hardelot, consists, where there are no marshes, of the dunes or drifted sea sand, and the probability is, as history states, that anciently this was one continuous marsh.

The point to which Dr. Cardwell directed his chief attention was Cæsar's place of *landing*, which he considered to be Deal. In maintaining that the debarcation was on Romney Marsh, I had relied on the Tide Tables published by the Admiralty, which, if correct, are decisive, that at three o'clock on the 27th August, B. C. 55, the day of the debarcation, the tide, which Cæsar says he followed (*ventum et æstum uno tempore nactus secundum*, iv. 23), was running, not eastward, towards Deal, but westward, towards Romney Marsh. The Professor of course felt the weight of this

argument, and makes some very candid admissions. "A basis," he says, "resting on such authority as the directions issued from the Admiralty, is *primâ facie* beyond the reach of cavil or objection: it is only when the problem is worked out, and found to terminate in incongruities and contradictions, that the inquirer feels his confidence shaken, and considers himself at liberty to examine for himself;" and he then proceeds to point out some supposed contrarities in my hypothesis, and which he classes under four heads.

The first and main objection urged by him* is as

* The Professor makes the following prefatory remarks, "Besides his war vessels, Cæsar had collected eighty transports to convey the two legions, consisting probably of about eight thousand men, whom he appointed to accompany him. Eighteen other transports were detained at a haven eight miles further north ('portus ulterior, superior,' Bell. Gall. iv. 23 and 28), being prevented by contrary winds from joining him. So that the wind was blowing steadily and strongly from the south-west, and the eighteen transports were detained on the coast near Calais. These vessels did not leave the harbour till the fourth day after Cæsar's arrival in Britain; and we may thence infer (and this is a point of importance) that the wind continued blowing from the same quarter. That they were detained by some such difficulty is evident from the fact that Cæsar had ordered all his cavalry, consisting probably of about eight hundred men, to go thither and to put to sea as soon as possible." And he then states his first objection thus:—

"First, then, I have already stated that the wind during the whole of the 27th of August was probably blowing up the Channel. That it was so for some time previously is evident from the fact that the eighteen transports were detained by the wind in a harbour eight miles further north than Cæsar's starting-place, and the only words connected with this matter on the day of departure are, 'nactus idoneam ad navigandum tempestatem,' which merely say that the wind had moderated. It is true that three days afterwards the wind blew furiously from the north-east, and drove the eighteen transports, when they were on the point of joining Cæsar, to a considerable distance down the Channel: but there is no evidence of any change

follows :—that Cæsar set sail with a south-west wind ; that the same wind continued to blow for the next four days ; that Cæsar, when he weighed anchor off Dover cliffs, and sailed eight miles, had the wind in his favour, and, therefore, as the wind was south-west, he must have steered to the north-east, which would bring him to Deal. To take the argument by steps, what evidence, in the first place, is there that Cæsar sailed with a south-west wind ? In the *second* invasion, it is no doubt mentioned expressly that the wind was *Africus*, or south-west, “*leni Africo*,” v. 8 ; but we are now upon the *first* invasion, and the only circumstances from which the quarter of the wind can be collected are the two following, viz. that it was “*idonea tempestas*,” a wind suitable to a passage from Gaul to Britain, which would place it south-east ; and again, that the eighteen vessels at a port eight miles to the north of Boulogne were prevented by the wind from reaching Boulogne, a fact which would point to a south wind. What objection, then, is there to the supposition of a south-east, instead of a south-west wind ? A breeze from the south-east would be more

during the interval, and the expression, ‘*ventum et æstum uno tempore nactus secundum*,’ which, according to Mr. Lewin, implies, by the meaning of the word ‘*nactus*,’ that the *wind* had undergone a change when Cæsar left his anchorage, may, for anything that we know at present, denote a change in the tide and not in the wind. In another part of his argument (p. 58) Mr. Lewin says, ‘The day after the transport of the infantry the wind had shifted from the south-west to the north-east ;’ and if he means that the shifting took place on the 28th of August, although I see no intimation of it, I am not required to gainsay it, being only concerned with the direction of the wind on the afternoon of the 27th. If then the wind was still blowing up the Channel when Cæsar quitted his anchorage off Dover, we have already an incongruity in the supposition that he was carried westward by tide and wind together.”

favourable for a voyage from Boulogne to Folkestone than one from the south-west ; and if the wind blew from the south-east, Cæsar, on arriving off the coast of Britain, would have the wind more suitable for a tack westward towards Romney Marsh, than eastward towards Deal. If, as is equally probable, the wind was direct south, it would then make little difference whether, on reaching Britain, he tacked east or west. As Cæsar sailed from Gaul to Britain on his second invasion with a south-west wind, he would find no difficulty, when he moored his ships off Britain on his first invasion, in tacking westward with a south wind. Even assuming with the Professor, but which is not necessary, that the wind was from the south-west, Cæsar, on quitting his moorings at the distance of half a mile or a mile from the shore, might very well have proceeded westward for a debarcation. However, the question from which quarter the wind blew when Cæsar set sail the first time is, after all, unimportant, as, in fact, the wind shifted, as we shall see, not long after his embarkation at the Portus Itius.

The next step in the argument is the assertion that the wind with which Cæsar sailed continued for the next four days. The only ground suggested by the Professor for this is, that the eighteen transports were detained for that length of time in the port eight miles to the north of the Portus Itius. "Those vessels," he says, "did not *leave the harbour* till the fourth day after Cæsar's arrival, and we may thence infer (and this is a point of importance) that the wind continued blowing from the same quarter." But what are the facts? Cæsar set sail himself from Portus Itius at midnight with a favourable wind for Britain, and the cavalry which he had despatched to the haven eight

miles to the north, was to have embarked with the same wind. There was some unaccountable delay at the latter port, and Cæsar, after waiting for the eighteen transports in vain for some time in the offing, was obliged, after all, to pursue his voyage alone, and reached Britain at 10 A.M. Now, whatever was the real cause of this tardiness at the northern port, it is clear that the wind, if it continued blowing from the same quarter, was not in fault; for, unless the eighteen transports could have left the port with the same wind with which Cæsar sailed, he would not have sent the cavalry thither for embarkation, and have waited for them in the offing. Besides, it is manifest, as the two ports were only eight miles apart, that a wind favourable to a passage to Britain from the one, would be almost equally so from the other.

Instead, however, of a *continuance* of the same wind for four days, it is quite plain from the whole narrative that, very shortly after Cæsar's departure from Gaul, the wind veered about. Cæsar and his officers in the triremes were no less than ten hours on the passage, and if we allow an hour, or even two, for Cæsar's waiting off the coast of Gaul for the eighteen transports, and take into consideration the deflections caused by the currents, the length of time is still inexplicable if the wind was favourable. The entire fleet did not reach Britain until *three o'clock in the afternoon of the next day* (iv. 23), and therefore consumed no less than fifteen hours on the passage, being at the rate of only two miles an hour. The Professor was much struck by this himself. "Observe," he says, "the slowness of their movements, for the transports had not all reached the ground where Cæsar anchored until five hours after his arrival." How then can these facts be reconciled with

the hypothesis, that Cæsar sailed with a fair wind, and that it so continued during the whole voyage. Is it not manifest that, though, when the fleet started, the breeze was in their favour, it afterwards shifted, and they were obliged while in mid channel to beat up against a contrary wind.

Look again at the account given of the eighteen transports. Dr. Cardwell states that "those vessels did not leave the harbour till the fourth day after Cæsar's arrival in Britain." But the words of Cæsar are "equites *cursum tenere atque insulam capere non poterant*, iv. 26, that is, the eighteen transports carrying the cavalry, set sail, according to orders, but had been forced to put back by stress of weather.

There is also another circumstance. When Cæsar weighed anchor at 3 P.M., it is said that he had "*got both wind and tide in his favour*" (iv. 23); and as the word *nactus* implies a change either in the *wind* or the *tide*; and, as we shall show conclusively hereafter, that the tide had been running westward for some time before, and continued to run westward for some time after 3 P.M. on the day of Cæsar's arrival, it follows that the change alluded to must have been in the wind. For these reasons, even admitting the wind to have been south-west when Cæsar started, I cannot assent to the proposition that it continued to blow from that quarter for the next four days.

11. The second inconsistency* imputed to me is

* "Secondly, Cæsar landed, as he says, at the distance of seven miles from the place where he lay at anchor. At that distance going westward you stand beneath the church at Folkestone; and neither there nor as you pass onward to Sandgate, with reefs on the one side, and a lofty ridge of rock and clay on the other, do you see any ground more favourable for a landing than the shore beneath the

this. The Professor suggests that Cæsar cast anchor off Dover, and “landed at the distance of seven” (according to other MSS., eight miles) “from the place where he lay at anchor;” and that Romney Marsh is “not at the distance of seven, but of nearly fourteen miles from the place of anchorage.” This assumes that, according to my hypothesis, Cæsar anchored off Dover; but my theory was that Cæsar anchored not off Dover, but off Folkestone, which would be the natural port from Boulogne, as we learn from the quaint language of Leland, “Folkestan,” he says, “by al gesse stondeþ very directly upon Boleyn.” Now, from Folkestone to the seashore, off Limne, is just eight miles. All that Cæsar relates of his first anchorage is, that the coast which he approached was hemmed in by steep cliffs, “montibus angustis continebatur,” iv. 23; and this description answers equally well to any part between Sandgate and the South Foreland. It must be confessed that in my Essay I had spoken in rather unguarded language of Cæsar’s fleet being off Dover, and a cursory reader might easily mistake my meaning, but the whole context showed clearly that the anchorage was placed by me not off Dover, but off Folkestone; and, accordingly, in the chart prefixed to the work, the lines of both voyages were drawn by me from Boulogne to Folkestone. The second objection of the Professor, therefore, falls to the ground, as based upon a misapprehension of my theory, though, of course, I take no small blame to myself for not having employed more definite language.

cliffs at Dover. In short, the nearest point at which Mr. Lewin is contented to place the landing is in Romney Marsh, at the distance, not of seven, but of nearly fourteen Roman miles from the place of anchorage.”

I may here observe, that although the landing was placed by me on the part of Romney Marsh which lies opposite Limne, it is impossible, in my opinion, to point out with any certainty the precise spot. The debarcation may, perhaps, have been at Hythe, which is also twelve miles from the Stour at Wye, and agrees in every particular with Cæsar's description. At whatever point the debarcation was effected, the first arrival and anchorage must be fixed eight miles to the east of it, and therefore somewhere between Folkestone and Dover.

The third alleged inconsistency* is of a more com-

* "Thirdly, Cæsar drew to land, 'aperto ac plano littore,' iv. 23, or, as elsewhere described, 'in littore molli atque aperto,' v. 9, that is, on a gently sloping coast, free from rocks and overhanging hills. The shore of the present Romney Marsh, and a considerable part of the Marsh itself, are evidently of recent formation. The deposits from the river by land, and shingle from the sea, appear to have employed themselves in past ages in converting a shallow bay into what is now a drained and cultivated level, but was in mediæval times a trackless swamp. Beyond Hythe, the low ground, together with the promontory beyond it, is still advancing into the sea, and the line of shore turns towards the south, leaving the ridge of hill, which accompanied us from Folkestone, to continue in its westward direction and to run inland. Here, doubtless, in the days of the Romans, was a considerable creek, the northern shore of which was bounded and overlooked by the same ridge of which we have been speaking, and the other sides would probably be swamp. That the ridge was the boundary on the north may be inferred from the fact that on this same ridge, at the distance of about three miles from the present shore, stands the village of Lympne, the ancient *Portus Lemanis*, one of the three principal harbours on this coast resorted to by the Romans in later times, and recorded in the Itineraries of Antoninus. Would such a creek, either on its northern rocky margin or elsewhere, afford such a landing-place as Cæsar describes in the words 'aperto ac plano littore'? Mr. Hussey says of it, 'At Hythe, or rather at Lympne, a reasonably good harbour pro-

plex character. The Professor states the requirements of Cæsar's landing-place to be, that it should have "a gently sloping coast, *free from rocks and overhanging hills*;"—that "a considerable part of the Marsh itself (Romney) is evidently of recent formation;"—that at Hythe, "doubtless, in the days of the Romans, was a considerable creek, the northern shore of which was bounded and overlooked by the same *ridge* (*viz.* the line of cliffs running from Folkestone), and the other sides would probably be *swamp*;"—and then he asks, "would such a creek, either on its *northern rocky margin* or elsewhere, afford such a landing-place as Cæsar describes in the words '*aperto ac plano littore*'? and in the Marsh itself," he says, "it is impossible to suppose that Cæsar would have disembarked." The upshot of the argument, then, appears to be, that Cæsar could not have landed in the creek, because the northern margin was rocky, with an overhanging hill; and that he could not have landed on the Marsh itself, because it was a swamp. Let me first speak of the rocks. The Professor had apparently not visited Limne, and he has therefore fallen into the not unnatural error of supposing that the ridge of rock from Folkestone to Hythe was continued to Limne, whereas just before Limne the formation changes, and at Limne itself, instead of the supposed rocks, there is a soluble clay. I may mention, as a curious instance of the softness of the

bably existed; but the ground abutting upon it does not in any degree possess, or appear to have possessed, the requisite peculiarities; and a movement from hence would have brought the Roman fleet to the shore of Romney Marsh, where it is impossible to suppose that Cæsar would have disembarked. Neither is it credible that he could in the first instance have steered to Romney or any other spot within the limits of the Marsh.' (Archæol. Cant. vol. i. p. 101.) I assent to these observations of Mr. Hussey."

soil, that the Romans erected on the slope at the north of the supposed creek an extensive fortress, now known as Stuttfall, and from the repeated slips of ground carrying along with them houses and trees, the walls of Stuttfall are now so dislocated that the original form of the castrum can scarcely be traced. It is even a current tradition that Stuttfall once stood on the *summit* of the hill, and has slid halfway down; but, although this is a vain imagination, no one can look upon the ruin without acknowledging the loose character of the soil. So much for the *rocks* at Limne, which do not exist. But as to an "overhanging hill," the Professor is quite correct, and I agree with him that a descent from ships at the foot of such a hill would have been unfavourable; but I had never asserted that Cæsar *did* land there. My theory was that Cæsar landed on the sea-shore opposite Limne, and a mile and a half from it. The debarcation of an army would require a long line of open shore, and such was that which presented itself upon Romney Marsh.

But here is interposed the objection, rather implied than directly asserted by the Professor, that although Romney Marsh is now *terra firma*, it was in Cæsar's time a mere swamp. This difficulty suggested by the Professor has given me some trouble, as I could not return a suitable answer without thoroughly investigating the formation of the level. By good luck, my friend Mr. Briggs, of the Chancery bar, who is fortunate enough to own an estate in the Marsh, introduced me to Mr. Elliott, who has been the engineer of the Marsh for the last twenty-five years, and his local knowledge, with other aids, has enabled me to arrive at, I hope, a satisfactory conclusion. I cannot here refrain from expressing the great obli-

gations I am under to Mr. Elliott for his extreme courtesy and kindness in transferring to me the fruits of his long experience, and without which I should have been quite unable to unravel the history of the Marsh.*

It is now certain, though it was long doubted, that the Marsh is absolutely and exclusively a sea deposit. This is evident from the marine shells which pervade the whole mass. The sea along this coast is commonly, and more particularly in the spring, charged with a quantity of earthy matter stirred up by the tide from the mudbanks along the shore. Occasionally the water is so foul from this cause that to bathe in it would scarcely be deemed an act of cleanliness, still less of pleasure. The sluices from the Marsh into the sea have invariably an intervening basin to break the force of the waves against the lock-gates, and in one of these basins, excavated only twenty years since, the deposit

* A stranger without local knowledge would fall into the greatest mistakes. Thus he sees west of Hythe a field in the Marsh clothed with verdure, and, observing the depression of the ground, imagines that here must have been the port of Limne, and begins to calculate how many centuries would suffice for the formation of the soil. In fact, the field was excavated many feet in depth very recently, the shingle being carried away along the canal to repair the roads; and the site of the shingle quarry was then purchased by a Mr. Marshall, who covered it with soil at a great expense, and on his death it was sold for one half what it had cost. Again, there is seen, running along the southern border of the triangular level to the south and east of Hythe, a long bank of earth, apparently for shutting out extraordinary tides; but, if so, how could the bank end, as it does, at the Elm Avenue, so that to the west of the avenue the sea would have ready entrance? The answer is that the bank originally was continued to the high shingle bed which formed the western lip of the port, and which is seen at the end of the avenue on the west; but a few years ago the bank was levelled in this part to fill up some hollows; and the mayor of Hythe, in consequence, found one day to his surprise ten inches of water in his drawing-room.



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from the sea has been no less than ten feet, or an average of half a foot per annum! This is under extraordinary circumstances, where the water being inclosed has time to settle; but as a general average the deposit may be taken as at least one-tenth of an inch annually. It has been ascertained, by boring at the west end of the Marsh, that the depth of the deposit is ninety feet, so that the length of time required for its elevation to the present level would, if this rate were assumed, be upwards of 10,000 years. But, in fact, such a rate is inadmissible, as the amount of deposit depends on the quantity of superincumbent water, and (the sea level being always the same) as the surface of the deposit below rose higher, the measure of water above it would become proportionably less. Besides, the precipitation of the silt is variable according to the force of current; and, from the configuration of the Marsh, the waters at a considerable depth might have been comparatively much more quiescent, and therefore less capable of holding the silt in suspension.* Had the sea not been excluded artificially,

* On the subject of sea deposit, the following extracts from Captain Washington's Report to the Commissioners for inquiring into the State of the Tidal Harbours, furnish some valuable information:—"The *maximum* quantity of suspended matter in Dover Bay was found at high water spring-tides, in a strong off-shore wind at west-north-west, when as much as 473 grains per cubic foot were carried along by a tide stream running at the rate of $2\frac{1}{2}$ knots an hour. The *minimum* quantity observed was on a calm day, at slack water, when 11 grains only were found. The *average* quantity of matter borne by the stream, if we include these extreme cases, amounts to $51\frac{1}{2}$ grains, and, rejecting the extreme cases (which, I have no doubt, is nearer the truth), to $33\frac{9}{10}$ Although this amount of suspended matter seems large, there is reason to believe that an equal or greater quantity will be found along the whole of this coast. In Ramsgate Harbour, to the eastward, with an area of

the deposit would in the course of time have risen to the sea level ; but at present the surface of the Marsh (with the exception of Lydd and Romney, which are three or four feet above high-water mark) is on an average from eight to ten feet below it.

In walking along the sea-shore from Sandgate to Dungeness, a person will observe for the first three miles a continuous bed of shingle, then Dymchurch Wall reaching to the neighbourhood of Romney, and then again a bed of shingle running out eastward to Dungeness Point. All this shingle has been laid on the top of the marine deposit which constitutes the Marsh. The accumulation of shingle along this line may be thus accounted for. The rocky cliffs to the west, at Fairlight and further down Channel, are from year to year worn away by the action of the sea, and the debris by the roll of the water is rounded into pebbles. The run of the shingle in this part of the Channel is from south-west to north-east*, and as Lydd and

42 acres, the deposit is 2 feet in depth a year ; at Folkestone, to the west, with an area of 14 acres, it is the same. In Dover *Harbour*, with an area of 28 acres, there is every reason to believe it is quite as much. . . . With respect to the *rate* of stream that bears a certain quantity of matter in suspension, . . . a stream of $2\frac{1}{2}$ knots an hour held the largest amount of silt yet taken up (viz. 473 grains per cubic foot) in suspension. But we find also that a tide stream of half a knot carried 30 grains (the average amount) in suspension ; and even in slack water, on the surface, we found from 20 to 30 grains suspended in a cubic foot of water. There was probably, however, an undercurrent in motion. . . . With respect to the *time* required to deposit, . . . from some trials in tall glass jars, I found that, in still water, full one half of the particles (all the sand) dropped to the bottom in a few seconds."—*Report to the Commissioners for inquiring into the State of Tidal Harbours*. Appendix, p. 196.

* At Romney Hovoy there is at present an eddy of the sea from the

Romney were always either islands or a submarine ridge, the shingle from the west struck upon this bank and there accumulated. Lydd and its Rhyes were probably above the sea in the times of the Romans, for both Lydd and Rhyes betray a Latin origin, the former being the corruption of Littus, or shore, and the latter of Ripæ, or banks, both words corresponding very exactly to the facts. Much of the shingle, rounding Dungeness, travelled further on in a north-east direction, and formed a spit across the front of the Marsh. Ever and anon, however, as violent winds set in from the south-east, the head of the shingle spit was turned, and branches of the shingle called "fulls" were thrown out from time to time into the Marsh to the north. Thus, in ordinary weather the spit advanced north-east, and during adverse winds was wrenched aside into the Marsh. As the spit approached the hills to the east, the entrance into the estuary became contracted, and the current of the tides in and out of the estuary became stronger, and the violence of the south-eastern gales, combined with the increased force of the currents, produced corresponding effects upon the shingle spit in its progress eastward. Thus, from Dymchurch to West Hythe we find the fulls, or offshoots from the spit, running further and further into the Marsh; and what is most remarkable is, that all these deviations of the shingle are curvilinear, and bend *westwards*, showing that they were acted upon and swept round by the current into the

projection of Dungeness Point; and, in consequence of this eddy, the eastern horn of the Hoy, called Little Stone End, advances gradually *westward*, i. e. just in the opposite direction to the run of the shingle elsewhere. The existence of the eddy is proved by the fact that fragments of wrecks which occur on the west of Dungeness Point are carried round to the bay on the east of the point.

estuary: At West Hythe Oaks (about halfway between Hythe and Limne) the shingle fulls were in time thrown up to the very foot of the hills, and thus the mouth of the estuary was closed. Had this been the only outlet, the river Limen and other streams that flowed into the Marsh would have found a vent and forced the bar; but there was another break in the shingle spit between Lydd and Romney, and when the estuary was closed at the eastern end, the waters from the hills poured themselves southward by Wainway Creek to Promehill, and thence to Romney Hoy. Along this line are still pools of stagnant water, which are never dry, called Fleets. There was probably no opening in the shingle bank between Lydd and Rye, the harbour of Rye being formed not by any stream from the east, but by the Brede and Udamore Channels from the west. The hypothesis that when the mouth of the estuary was closed towards the east, the sea for many centuries still flowed into the Marsh, and found an entrance and issue towards the west, is proved incontestably by this remarkable phenomenon. While Romney Marsh Proper slopes northward towards the hills, it also slopes westward towards the Rhee Wall, the surface at West Hythe Oaks being highest, and gradually descending towards the Dowles, which is the lowest. So long as the eastern mouth of the estuary was open, the current from the inset and outset of the tides would prevent the deposit of silt, and keep the parts adjacent lower than those more distant. The greater elevation of the soil towards the east of Romney Marsh Proper can, therefore, be only accounted for by the fact that when the shingle "full" had been thrown quite across the Marsh at Westoaks, and so closed the mouth of the estuary at that end, the sea still entered from the west,

and that, thenceforth, the process of silting went on for many centuries in usual course, viz. most rapidly towards the east, where the water was tranquil, and less rapidly towards the Rhee Wall, in which direction was the scour of the current.

At West Hythe Oaks, where the shingle has touched the hills, the fertile soil of the Marsh ends towards the east, and the jurisdiction of Romney Marsh Proper extends no further. To the west of this, the Marsh is a rich mould deposited by the sea, while all to the east, as far as Sandgate, is (with the exception of a narrow strip to the south and east of Hythe, between the sea-beach and the hills) one vast bed of shingle. The military canal runs round the whole Marsh, and it will be seen that the spoil thrown up to the west of West Hythe Oaks is Marsh mould, while that thrown up to the east is almost all shingle. Another circumstance which must not escape observation is this :—Up to West Hythe Oaks all the shingle falls curve, as we have said, westward, as bent round in that direction by the inset of the tides ; but from West Hythe Oaks to Sandgate all the shingle falls curve eastward ; that is, the mouth of the estuary, when they were formed, had been closed, and the falls therefore lie in ridges as they would be deposited by the action of the sea, uninfluenced by any stream inwards.

While Romney Marsh, to the west of West Hythe Oaks, is considerably below high-water mark, all this shingle bed from West Hythe Oaks to Sandgate is above high-water mark, and the latter area is so extensive that it cannot have been cast up since the days of Cæsar. The supply of shingle from the sea, at the ordinary rate, would not yield anything like so much. Besides, we know that, at least for many centuries past,

the sea, instead of accumulating shingle in this part, has, from the growth of Dungeness Point, which intercepts any new supply, been yearly carrying away the shingle eastward, and so wasting the beach between Dymchurch and Hythe.

The narrow strip to which we alluded as lying at Hythe, between the shingle spit and the hills and an exception out of the shingle bed, is a low tract of sea deposit kept free from shingle by the action of the three streams which descend down the three valleys at the back of Hythe. As the waters must always have run to the sea, they prevented the shingle spit in front from closing upon them, and the tide, of course, entered by the same channel by which the streams discharged themselves, and thus along the foot of the hills at Hythe, there was, behind the shingle spit, a narrow gut which served as a port. Two islands were anciently formed by the channels of the streams on their way to the sea, and the traces of them have only recently disappeared (see post). The mouth of the gut, that is of the port, was at the end of the present Elm Avenue, which connects Hythe with the seaside, and on the right hand, or west. A few years since, the corporation, at a great expense, filled up the hollow to nearly a level with the adjoining ground, but the channel, with a high shingle bank on each side, is still very distinguishable. In the sixteenth century, Leland describes the haven accurately as "crooking so by the shore along, and so backed from the main by shingle, that small ships may come up a large mile as in a sure gut." Eventually the streams were found insufficient to keep the harbour scoured, and it was silted up, and so became useless. West Hythe suffered first, as the silt at the extremity of the gut, where there was the least scour, accumulated at the

greatest rate. Hythe, in the course of a few centuries, was also consigned to its fate, and when the military canal was cut, the three streams were turned into it, and all between the canal and the sea then became, as it still is, dry ground.

That the great shingle spit which we have been describing once reached all along the border of the Marsh, from Lydd on the west to Sandgate on the east, but with a break between Lydd and Romney, and another at Hythe, at the harbour mouth, cannot be doubted. It still stretches across Lydd and Romney (which are both built on it), and runs as far as to the *western* end of Dymchurch Wall. From the *eastern* end of Dymchurch Wall to Hythe it spreads itself out as far as the hills, a breadth from two miles on the west to half a mile on the east; and then, shutting in a miniature Romney Marsh to the east of Hythe, continues on to Sandgate. The only interruption at present of the shingle spit is along the course of Dymchurch Wall; but that it anciently existed along this tract also is evident; for "where Dymchurch Wall is now erected, there are shingle banks under and inland of the present wall, throughout the whole length, nearly at right angles to the line of coast, exactly in the position into which they would be thrown by an adverse wind and strong current on the end of the 'full,' while in a state of formation."* The cause of interruption of the shingle spit along Dymchurch Wall was this:—At the same time that the shingle spit extended itself longitudinally towards Hythe, it also, at Dungeness, advanced laterally to the south. At the present day, it has elongated itself as far as Dungeness Point, and is still pro-

* Elliott's paper on Romney Marsh in sixth vol. of Transactions of Civ. Eng.

gressing in the same direction at the rate of two or three yards per annum.* The consequence of this gradual projection of Dungeness Point was, that the headland thus thrown out intercepted more and more the run of the shingle from the west to the eastern parts of the Marsh; and while the shingle in the centre of the Marsh continued moving on eastward, and accumulating towards Hythe, there arrived no new supply of shingle from the west; and thus the shingle bank about Dymchurch, which had originally been a high and sufficient rampart against the sea, became weaker and weaker. The diminution of the shingle about Dymchurch was at first remedied by what are called "insett walls," *i. e.* subsidiary walls behind the shingle

* "It appears that since the erection of Dungeness Lighthouse, in 1792, the Ness has advanced seaward about 121 yards, or at the rate of seven feet a year. . . . Dungeness Lighthouse was rebuilt, in 1792, at 600 yards nearer the shore than its old site (as we learn from an inscription in the lighthouse), at 100 yards' distance from the sea (whether at high or low water is not stated, but we will assume the latter). The date of the erection of the old building is not known; but from Jeake's Charter of the Cinque Ports, written in 1678 (p. 124), it is conjectured that it was built in the time of James I., say 1603. Supposing that the old lighthouse was erected at the same distance from the sea as the present one, that is 100 yards, it would give us 7 ft. 10 in. as the annual rate of increase of the Point during 190 years. Now, from actual survey of Dungeness Point made in Her Majesty's ship 'Blazer' in November 1844, we find that the distance from the centre of the lighthouse to low-water mark of ordinary spring-tides is 221 yards. Consequently, if, as stated above, the present lighthouse was built, in 1792, at 100 yards from the sea, it is manifest that the Ness has advanced seaward 121 yards, or at the rate of seven feet a year. This is certainly a remarkable coincidence."—*Extract from Captain Washington's Report to the Commissioners for inquiring into the State of Tidal Harbours.* Appendix, p. 196.

spit, for the purpose of preventing any extraordinary floods from the sea. Then "groynes," or "knocks," were employed to check the run of the shingle eastward. Then, as the natural barrier still diminished, recourse was had to brushwood piles and overlaths, called "arming." Then, stronger timbers, brought from the hills surrounding the Marsh, were introduced. But still the mischief grew until about a quarter of a century ago, when the present wall was constructed of stone under the superintendence of Mr. Elliott, the eminent Marsh engineer. Such is the power of the sea that the repair of the wall still costs annually about 5000*l*. The time may perhaps come when the pressure of the ocean can no longer be resisted, and the Marsh, which was formerly reclaimed from the waste of waters, may again be submerged.

By whom, or at what time, Romney Marsh (all of which, *within the shingle spit*, is under high-water mark) was reclaimed, we have no historical record, except as to the western portions. We have, however, materials for forming a judgment. The Marsh is distributed into two grand divisions by what is called the Rhee Wall, running from Appledore to Romney. All on the east is Romney Marsh Proper, and the western portion consists of Denge Marsh to the south, Guildeford Marsh to the west, and Walland Marsh to the west of Romney Marsh and the north of Guildeford Marsh. Romney Marsh Proper was certainly inclosed the first, and, what is very observable, the whole of it must have been reclaimed at once, for there are no internal walls or fencings on the eastern, as there are on the western side of Rhee Wall. The exclusion of the sea from Romney Marsh Proper was a grand work, and the general, and probably the correct, belief is, that the enterprise was

undertaken and carried out by the Romans.* It is certain that, during the time of the Romans, this part of the Marsh was long under cultivation, as Roman remains are found over the whole. At Dymchurch, for instance, was an extensive Roman pottery. The sea there had thrown up a fine white putty-like clay, and also a clean sharp sand, and these two materials offered peculiar facilities. Even at the present day the area of the manufactory is easily traceable, and fragments of the art are found scattered about in great abundance, many of them as fresh as if they had only just parted from the fingers of the potter. At Ivychurch also, in the very centre of the Marsh, the plough has very recently turned up considerable quantities of Roman pottery, relics of the former occupiers.

The mode of reclaiming Romney Marsh Proper was this:— On the *south*, the shingle spit was of itself, at that time, a sufficient rampart against the sea; as regards the *east*, we have seen that the shingle spit, in its progress from Lydd eastward, had been ultimately thrown quite across the Marsh at West Hythe, up to the foot of the hills, and thus closed the mouth of the estuary at this end. But though the shingle field reached here to the foot of the hills, yet as the bed of shingle in this part, for about sixty yards from the hill, was, from the streams descending from the uplands, kept lower than elsewhere, there was danger lest extraordinary floods might sweep over the shingle into the Marsh. In order, therefore, to guard against any mishap of the kind, a wall was carried across

* Mr. Smiles, in the "Lives of the Engineers," expresses an opinion that the Marsh was reclaimed before the invasion of Cæsar by the Belgæ, who had brought the art of embanking with them from the Netherlands.

as a barrier against sudden irruptions: at least, opposite West Hythe Oaks, at the end of the jurisdiction of Romney Marsh Proper, is a bank of earth at right angles to the hill, and running out southward till it joins the shingle of a higher level. On the *west* it was necessary, for shutting out the sea from Romney Marsh Proper, to carry a wall from Appledore to Romney. The Marsh also, when inclosed, would require to be drained by numerous sluices, and the main channel in which they terminated could only be kept open and free from silt by constant scouring. These objects were attained by one remarkable piece of engineering. The river Limen, now called the Rother*, was the drain of the Andred Forest, and in its course eastward divided itself at the Isle of Oxney into two branches: one, the smaller, flowing along the *south* of the island into the estuary, and thence into the sea, between Lydd and Romney; and the other, the main channel, flowing along the *north* of the island into the estuary, a little below Appledore, towards Snargate. The old bed of the Limen, along the north of Oxney Island, can still be distinctly traced to near Snargate, where its course abruptly ends. The reason is, that here was the mouth of the river into the estuary. This is no vague surmise, but can be proved to demonstration. Thus, to the south of Appledore, is the very lowest part of the Marsh, either excavated by the torrent from the river, or exempted, by the current, from the process

* Ravennas (in the seventh century) mentions, amongst the rivers of Britain, Durbis (Dover), Lemana, Rovia. The Lemana was the Limen, which then discharged itself along the Rhee Wall at Romney, and the Rovia was the river at Rye, consisting of the Brede and Udamore streams, which scoured the harbour there until the time of Edward I., when the Limen also fell into the same channel.

of silting, which was continually raising the level in the neighbourhood. Not only so, but we now find the whole country about the mouth of the river, near Appledore, in the circuit of about a mile (and at no other part) replete with trees of oak, alder, and birch, some of great size, and evidently, from their position, drifted from a distance, and deposited where now found.* The presence of *oak trees* is remarkable, and decides at once that the trees are not *in situ*, for, singularly enough, there is something in the Marsh mould uncongenial to the oak, so that not a single specimen of it can be discovered throughout the whole level, with the exception of one or two, at the spot called West Hythe Oaks, and so named from this unusual phenomenon.

The plan pursued by the Romans was the excavation of a deep channel, with high banks or walls on each side, and nearly in a straight line across the Marsh, from the mouth of the Limen, near Appledore, to Romney. The width was from eighty to one hundred feet, and the height of the walls varied according to the level of the land, being highest towards Appledore and lowest towards Romney. The Marsh, also, was at the same time intersected by sluices, which emptied themselves into the new cut; and the latter was scoured by the river Limen, which was at least partially diverted into it, and so conducted to Romney.

By these means, nearly 24,000 acres of rich fertile ground, now called Romney Marsh Proper, were at once reclaimed, and the possession of them must have amply repaid the labour and expense of the bold adventurers. The new Marsh, from those who had

* Report of Roman Castrum at Lympe, by C. R. Smith and J. Elliott.

reclaimed it, was called the Roman, or Romney Marsh, and the cut from Appledore to Romney was called, in the language of the Romans, "Rivi Vallum," or Rhee Wall. This new inclosure, intersected by countless sluices, is perhaps what is referred to in the inflated account of Nennius, who wrote A.D. 858. In his "Catalogue of British Wonders," he says, "The first marvel is the Lommon (lege Limen) Marsh, for in it are 340 islands, with men living in them! It is girt in by 340 rocks! and in every rock is an eagle's nest!! and 340 rivers flow in it! and there goes out of it into the sea but one river, which is called the Lemn (lege Limen)!" *

The changes introduced by this diversion of the river, and the exclusion of the sea, were striking. The issue of the Rother at Romney formed a bay, offering safe anchorage to vessels; and, at the same time, the bed of the river served as an inner haven, and masts of ships might be seen in long array, stretching across the Marsh to Appledore. Ptolemy the geographer, A.D. 120, in describing the southern coast of Britain from west to east, speaks of *καινὸς λιμήν*, or New Port, as lying at about equal distances between the Arun and North Foreland; and we may hazard the conjecture that the port intended was the one newly formed at Romney. It was probably up this channel called the Limen Mouth that the Danes sailed in the ninth century. The Saxon Chronicle relates (A.D. 893) that they embarked at Boulogne, and "came to land at Limen Mouth with 250 ships. . . . On this river they *tugged* up their ships as far as the Weald, *four miles* from the *outward harbour* . . . then, soon after that, Hasten, with eighty ships, landed at the mouth of

* Nennius, c. 80.

the Thames, and wrought himself a fortress at Middleton, and the other army did the like at Appledore." The distance of Appledore from Romney is no doubt somewhat more than four miles, viz. about five miles; but great exactness is not to be expected from a record of the mediæval times. The remains of the fortress erected by the Danes at Appledore are still to be seen about a quarter of a mile to the west of the church.

As to the portion of the Marsh to the west of *Rhee Wall*, the whole of it is a complete network of seawalls and sluices, without any uniform or systematic plan, thus showing that it has been reclaimed by piecemeal at different times, and by private enterprise. As no Roman remains are found in this part, the drainage of it was, presumptively, after the time of the Romans. Denge Marsh was probably the first reclaimed. Yet, even as late as the eighth century, it is said that Lydd was exposed to the sea, not only on the east, but also on the north*; and the hollow of an arm of the sea may be traced to the present day in this direction. Walland (or more properly Wall-end Marsh, *i. e.* the marsh at the end of the old Rhee Wall) was the next to be reclaimed; and the last to be inclosed was Guildford Marsh. The innings of Walland Marsh tell some of them their own tale. Thus, there is St. Thomas's Innings, so called as inclosed by Thomas à Becket †, about

* In A.D. 774 King Offa made a grant of land, "in occidentali parte regionis quæ dicitur Mersware ubi nominatur ad Lyden. Et hujus terræ sunt hæc territoria: mare in oriente in (qu. lege et) aquilone; et ab austro terræ Regis Edwy (nominant Dungmere) usque ad lapidem oppositum in ultimo terræ (Stone End); et in occidente et aquilone confinia regni ad Bleechinge."—*Sommer's Roman Ports*, 50.

† "A very large portion of Walland Marsh did belong to the Church, but this is not the case now to any great extent."—*Note by Mr. Elliott*.

A.D. 1162 ; Baldwin's Innings, so called from Baldwin, another Archbishop of Canterbury, who flourished A.D. 1184 ; Peckham's Innings, from another archbishop who flourished A.D. 1229 ; Boniface's Innings, from another archbishop who flourished A.D. 1250. The Low tract from Snargate to Appledore, and running thence towards the south-west, was inclosed A.D. 1447, by Sir John Elrington. The more recent reclamation of the part to the west of Rhee Wall, as compared with that to the east of Rhee Wall, is evinced also by this circumstance, that while in very early times, viz. A.D. 1257, Romney Marsh Proper is stated to have been "governed time out of mind by ancient and approved customs," the portion to the west of Rhee Wall had no law until A.D. 1288, when a commission was issued directing proceedings to be taken according to the customs of Romney Marsh Proper.*

It was in the reign of Edward I. that the western portion of the Marsh experienced a complete metamorphosis. At that time an extraordinary irruption of the sea occurred, destroying whole villages, and breaking down the artificial banks of the Limen. The river being thus set free, poured itself into Walland and Guildeford Marshes, and found its way through the shingle bank into the sea towards Rye, and so fell into the same channel with the Rother, which had previously consisted only of the Brede and Udamore streams, but now absorbed the Limen also, which thenceforth lost its ancient name. The old bed of the Limen from Appledore to Romney still exists, and the dry channel in the Marsh, when I saw it, was a long extended corn-field, shut in between high banks covered with verdure. The bed of the

* Somner's Ports and Forts, p. 55.

channel was actually higher than the level ground on either side, but whether from the silt of the sea in ancient times or from the falling in of the banks may be left to conjecture.

Now that we have sketched the early history of the Marsh, we can picture to ourselves with some confidence, what were the features of the coast at the time of Cæsar's arrival. From Dungeness to the eastern end of Dymchurch Wall, extended a long spit of shingle, intersected only by a channel between Lydd and Romney, being the mouth of the estuary which lay behind the shingle spit. From the end of Dymchurch Wall began a broad shingle field, reaching in width in an irregular line to West Hythe Oaks, halfway between Hythe and Limne, and stretching in length from the end of Dymchurch Wall to Sandgate, but broken at Hythe by an opening, which led to a narrow gut which ran along the foot of the hills and was fed by the three streams which descended from the heights at the back of Hythe. All this shingle field from the end of Dymchurch Wall to Sandgate was perfectly flat and *above high-water mark*. The devious courses of the streams from the hills formed, by their tortuous channels through the shingle, two or three small islands. This narrow gut was the port afterwards known as "Portus Limanis." Hythe, in Saxon, is nothing more than the translation of the Latin Portus, and was substituted for it by the Saxons. The notion that Portus Limanis was at the foot of Limne Hill is wholly untenable. *The sea could not have flowed to the foot of Limne Hill without inundating the whole Marsh.* There could not, therefore, have been a port at Limne after the inclosure of the Marsh. On the one hand, from the remains found scattered over Romney Marsh Proper, it must evidently have been long under

cultivation in Roman times ; and, on the other hand, the Portus Limanis must have continued such until the abandonment of Britain by the Romans, or nearly so, as we find mention made of Portus Limanis in the Antonine Itinerary, and by the name of Limanis, in the Notitia, and in Ravennas. The inclosure of the Marsh, and the Portus Limanis were, therefore, co-existent ; that is, the Portus could not have been at the foot of Limne Hill, as in that case the sea would at the same time have covered the whole Marsh. It is observable that the straight line of Stone Street, the old Roman road from Canterbury to the coast, strikes West Hythe, and not Limne. As to the great Roman castrum of Stuttfall, which stands on Limne Hill, it was for the protection, not of the port, but of *Saxonicum littus*, *i.e.* to guard the coast against the Saxon buccaneers, who, in the latter days of the Roman domination, had commenced their incursions, and might land equally well upon any point along the great level of the Marsh.

The breadth of the Marsh at present is, at the end of Dymchurch Wall, about two miles, and at Hythe about half a mile. But in the time of Cæsar the shingle field must have been considerably wider. The supply of shingle from the west has been cut off by the gradual elongation of Dungeness Point, while the movement of the shingle eastward along Romney Marsh still continues, and the spit about Hythe, no longer replenished from the west, has for some centuries been losing ground. On comparing a map of the Marsh, in A.D. 1617, with the present state, it would appear that, during the last 250 years, the sea has carried away the shingle at Hythe to the extent of about a quarter of a mile.* At the same rate the shingle, in the time of

* See the map in sixth vol. of Transactions of Civil Engineers.

Cæsar, would have extended out to sea a mile and three-quarters further than at present. However, according to Mr. Elliott, Dungeness Point now advances about seven feet annually, but, in ancient times, it advanced, in Mr. Elliott's opinion, much more rapidly—say three yards annually—and he estimates that the projection from Lydd to the existing point has been the work of about 1900 years. As the abstraction of the shingle at Hythe would be constant, but the new supplies of shingle from the west would be less and less as the point of Dungeness was pushed forward, we should not be justified in assuming the present rate of abrasion at Hythe as the measure of abrasion for the whole period since the age of Cæsar. If we assume that the triangular level, from the end of Dymchurch Wall to Shorncliffe, has been wasted to the extent not of one mile and three-quarters, but of at least half a mile, we shall probably be within the mark.

It is plain from the foregoing facts that the probable state of the Marsh in the time of Cæsar, so far from offering any objection to the hypothesis that he landed there, furnishes the strongest argument in support of the theory. Let us follow the account of the commentaries step by step. Cæsar tells us that at the place of debarcation was a flat and open beach, "*aperto ac plano littore,*" iv. 23, and what can answer better to this description than the perfectly level and bare shingle field between Sandgate on the east, and the end of Dymchurch Wall on the west? But the shore was also "*open and soft*" ("*molli atque aperto,*" v. 9), which I take to mean free from rocks, and all along the Marsh not a rock or reef is to be seen. Again, when the Romans reached the shore, they stood "*in arido,*" iv. 26, and drew up their ships "*in aridum,*" iv. 29, and this shingle field is

sound and dry, without any mixture of ooze ; though where the streams from the hills formed the port, there was no doubt marshy ground, as is also required by the accounts of Lucan, Plutarch, and others. It is a circumstance not to be passed over, though slight, that Cæsar, in his first expedition, and when he scarcely moved from his camp, describes the British *essedæ* or war-cars as running down steep and precipitous places, “*declivi ac præcipiti loco*,” iv. 33, and just such declivities are in this part of the Marsh on the north. Again, what is Cæsar’s account of the debarcation itself? We read that the shore sloped so gradually into the sea, that the heavy transports could not approach the seabord, and that the Britons, partly on horseback and partly on foot, rushed into the water towards the ships, and, pouring in a volley of darts and javelins, so cowed the Romans that they were afraid to leap overboard (iv. 24). As the triremes drew much less water, and could come nearer to the beach, Cæsar ordered them to retire far enough back to get their full impetus, and then to charge, beyond the transports, on the flanks of the Britons. This movement had the desired effect, and the Britons, startled by the novel and formidable appearance of the triremes, and scared at their rush through the water, and receiving a storm of stones, arrows, and javelins from the military engines on board, were fain to give ground ; when the standard-bearer of the famous tenth legion seized the favourable moment, and throwing himself into the sea made for shore, and his own men and the troops from the other ships were obliged from shame to follow his example (iv. 25). That there was some little space between the transports and the beach is evident from the expression that the Romans, after leaping into the water, “*hostibus appro-*

pinquarunt," iv. 25. As the Romans struggled to land in detached parties, they were sorely pressed here and there by superior numbers, and Cæsar sent succour in small boats where it was most wanted. As soon as the legions stood firmly on the beach, and formed in rank, they drove the enemy before them. This descent was made between 5 and 6 P.M., with high water at 8½ P.M., and, therefore, at the commencement of the flood, *i. e.* when the tide began to rise; and at this time there would be off Hythe just such a gradually shelving shore as Cæsar depicts. The heavier vessels would not be able to near the shore, and only small boats could advance to the water's edge. To this day the colliers which come to Hythe, and which may be taken to represent very fairly the transports of Cæsar, cannot approach the shore near enough to unload, except at spring-tides. It was this flatness of the shore which induced Cæsar, when preparing for his second expedition, to construct his vessels of greater breadth and of less draught of water, that the difficulty which had attended his former debarcation might not be repeated.*

Again, Cæsar, after landing, pitched his camp on the sea shore, and Valerius Maximus relates an anecdote that Scæva, with four others, was posted as a picquet on an ait for observing the enemy who were in occupation of a neighbouring island separated only from the ait by a channel subject to the flux and reflux of the tide. When the sea had sufficiently receded, the Britons, who were familiar with the localities, rushed across the channel to capture the detachment; but Scæva, after prodigies of valour, swam back to the camp (Val. Max. lib. iii. c. 2), and presented himself before Cæsar,

* "Ad celeritatem onerandi *subductionesque* paulo facit humiliores," v. 1.

who is said to have personally witnessed the exploit (Plut. Cæs. 16). On the assumption that Cæsar landed at Hythe, the islands thus referred to would be those formed by the streams from the hills in this part and only lately effaced, and as the camp was close at hand, Cæsar could very well have been a spectator.

Again, the triremes which Cæsar had drawn up upon the beach, "in aridum subduxerat," iv. 29, were filled with water by the spring-tide, increased by a violent gale, "tempestas afflictabat," iv. 29; and this is just what would occur at Hythe, where the shingle bank keeps out the ordinary tides; but if there be a strong south-east wind at high tide, the sea pours over the shingle, so that vessels lying on their sides upon the flat beach would be filled with water.

About a fortnight or three weeks after Cæsar's arrival on the first invasion, the Britons, taking heart, formed the design of storming the camp, when Cæsar, thinking it better policy to deliver rather than to sustain the assault, drew out his army in battle array, and a fierce engagement followed. Roman discipline prevailed, and the Britons were routed with considerable slaughter (iv. 35). No traces of the camp itself can be found, as it was probably pitched by the water's edge, and this part of the coast has for centuries been abraded by the action of the sea. But it is at least a singular coincidence that, wherever you dig in the field to the south and east of Hythe, on the triangular level there, human bones, and unquestionably of men slain in battle, are brought to light. They are exclusively the bones of grown men, buried only a few feet below the surface, and without any care, in all conceivable positions.* I do not affirm that these are

* I am indebted for this information to Mr. Elliott.

the remains of the Britons who fell in the conflict with Cæsar, for they may be the bones of either Saxons or Danes who afterwards landed at the same place; but, even on the latter supposition, we may fairly draw the conclusion, that if Saxons or Danes chose this spot as favorable for a debarcation, Cæsar, ages before, may have made a similar descent. It may be objected that the field to the south of Hythe is distinct from the great shingle bed, and below high-water mark, and must, therefore, have formed part of the port, or have been an estuary; but as the port continued until Leland's time, in the sixteenth century, and no battle has been fought there since, the field must, at all events, have been dry ground contemporaneously with the existence of the port. Why may it not have been so even in the time of Cæsar? It was certainly dry at low water, and if the Britons in his day could send a navy to aid the Veneti in Gaul *, they could unquestionably have possessed the skill to embank the port and drain the land in the immediate neighbourhood.

I cannot help thinking that this port of Hythe, the old Portus Limanis, was amongst the inducements which led Cæsar to disembark on this part of the coast. If the survey made by Volusenus was worth anything, it must have contained a notice of the haven just opposite Boulogne. Besides, we read that Cæsar consulted the merchants who traded with Britain, and to whom the port of Hythe was familiar, and what was the result? Cæsar writes that he could not learn from them "what ports were adapted to the reception of a multitude of vessels of the *larger sort*."†

* B. G. iii. 9.

† "Qui essent ad majorum navium multitudinem idonei portus," iv. 20.

that is, what ports there were in which a fleet of war vessels could anchor without being left aground by the ebbing tide. Does not this imply that Cæsar was well enough informed of the smaller havens on the British coast, such as that at Hythe? The narrow and winding gut which constituted the port was, of course, little capable of receiving a fleet. Indeed, as it was a tidal harbour, and could only be entered and quitted at high-water, and as its banks were lined by a hostile population, the mooring of the Roman vessels within it would have been certain destruction. On both invasions, the Britons assaulted the very camp of Cæsar, (iv. 34, v. 22); and had his fleet entered the haven, it must infallibly have been burnt, and perhaps the Roman Empire had not been founded on the plains of Pharsalia. Cæsar's ships were his fortunes and his life, and, accordingly, the wary commander first stationed them in the offing; and then, when the elements were found irresistible, he drew them up on shore, and united them to his camp by strong lines of fortification. But though the narrow and winding harbour of Hythe was no asylum for his fleet, it would be highly useful for keeping up his communication with the Continent, from which all, or the greater part of his supplies, were to be drawn, and Hythe and Boulogne must, from their situations, have always been the most convenient ports of passage between the two countries.

4. The fourth objection* of the Professor presents

* "Fourthly, in his second expedition, Cæsar departed from the same harbour, and landed on the same shore, as in the former instance. He put off at sunset, '*leni Africo provectus*' (v. 8), and if he sailed in the direction of the wind, he went up the Channel. He was carried onward by the wind until midnight, when, the wind dropping, he allowed himself to float with the tide. The tide

no difficulty. He argues that Cæsar, on his second expedition, set sail with a south-west wind, "*leni Africo*," and, therefore, up Channel; that at midnight the wind dropped, when "*he allowed himself* to float with the tide," which "carried him *so far* out of his course that, at daylight, he found himself leaving England in the distance, on the left hand;" and then he asks, "Is this consistent with the intention of sailing from France to Romney Marsh, a place nearly due west, and for which he must make *across* the stream instead of *floating along with it*?" The meaning of the Professor, I understand to be, that Cæsar *intended to go along* with the tide, but that it carried him *too far* in that direction. But who can assent to this construction? Cæsar tells us plainly that the tide drifted him from the first *out of his course*, "*cursum non tenuit*," v. 8, and that, when he discovered the drift, he followed the change of tide back again, "*tum rursus æstûs commutationem secutus*," v. 8. The drift, therefore, eastward, and Cæsar's resumption of his former course by rowing back, prove that the landing-place for which he was making was some point to the west. Besides, how could the drift of one tide, by any possibility, have carried him through the straits of Dover so far beyond Deal, that he should consume eight hours in rowing to Deal, though the tide is said to have been in his favour?

These are all the supposed inconsistencies pointed out by the Professor, and, unless I deceive myself, they have been satisfactorily explained. We have now to

carried him so far out of his course, that, at daylight, he found himself leaving England in the distance, on his left hand. Is this consistent with the intention of sailing from France to Romney Marsh, a place nearly due west, and for which he must make across the stream, instead of floating along with it?"

follow him into a much wider field, viz. the currents of the Channel. I had argued that on 27th August, B.C. 55 (being the fourth day inclusive before the full moon on the night of 30th August, iv. 28, 29), the tide, at 3 P.M., was running, off the coast between Dover and Folkestone, towards the *west*, and that Cæsar consequently sailed in that direction; towards Romney Marsh, and not towards Deal.

The Professor* admits the *primâ facie* credibility of

* "I am well acquainted with Folkestone and its harbour; and there are there shrewd and sensible men whose business lies upon the water, and is constantly impeded or promoted by its currents. To men of this description I put several questions, and received from them deliberate answers. I give the two following, merely observing that the questions were given and the answers returned in writing:—

"How soon after high-water does the stream begin to run down Channel? Answer: In two hours.

"How long afterwards does it continue to run down Channel? Answer: Five hours.

"This information differs materially from the notices of the tide-tables. It gives two hours less for the turning of the stream after high-water, and again two hours less for the continuance of the stream down Channel afterwards.

"We will take as our basis, for the moment, the information obtained from Folkestone, and see what effect it would have upon the solution of the problem. There can be no difference of opinion as to the time of high-water. On the 27th of August, 55 B.C., it was 7.31 A.M. In two hours, that is at 9.31, the stream began to run down Channel. It continued so to run for five hours longer, that is, until 2.31 P.M. It was then slack-water for about a quarter of an hour, and at 3 o'clock P.M. the stream had turned, and was running up the Channel.

"But in the course of the inquiries made at Folkestone, I met with certain distinctions which appeared to be of great importance in the determination of this question. I found that there was a difference, and in some cases a great difference, between the times of the stream in-shore and in mid-channel. I had reason to believe that though the tide in mid-channel turned four hours after the Folkestone high-water, the tide in-shore turned two hours and a half after that time.

the Admiralty Tables, which I had made the basis of my argument, but informs us that, being well acquainted

Is it not possible that the basis obtained from the tide-tables expresses the rule which prevails in the open Channel, and that Cæsar having anchored off Dover, and probably within a short distance from the land, was governed by the exceptionable tide which prevailed in-shore ?

“ It is evident that the rule which holds generally in the Channel is the one which it was the express business of the tide-tables to record. But it is indispensable for the purposes of an inquiry connected with Cæsar’s departure from his anchorage, that the circumstances of the in-shore tides should be known and taken into account. Captain Beechey, who made the survey of the Channel, under the direction of the Admiralty, was applied to on this point by the Astronomer-Royal, and gave him the following answer:— ‘ At full and change of the moon, the stream makes to the westward, off Dover, at the distance of a mile and a half from the shore, about three hours ten minutes; and there does not appear to be much difference, in this part of the Channel, between the turn of the stream in-shore and in the centre’ (Archæol. vol. xxxiv. p. 239). In this answer, the latter portion, which bears upon our present point, cannot, I think, be considered as conclusive, although the Astronomer-Royal was induced by it to disregard the amount of the in-shore difference. The language employed by Captain Beechey appears to state that he was not aware of any noteworthy difference, rather than that he had ascertained that no such difference existed. Knowing, then, that an important difference of the kind was acknowledged to exist at Folkestone, I could not accept Captain Beechey’s evidence as conclusive against the existence of a corresponding difference at Dover.

“ How, then, was this problem to be solved? There is one person above all others at Dover, on whose judgment reliance would be placed in a disputed question of this nature. Accustomed to cross the Channel in command of an important service, he has a personal knowledge of its currents, and much responsibility attaching to that knowledge; connected by long experience with the harbour and the offing at Dover, he is locally acquainted with the times and directions of the stream in-shore. His authority is more valuable than that of the tide-tables, because it embraces the exception as well as the rule, and can be brought to bear upon the question not merely as a general principle, but as a direct answer to an individual case.

with Folkestone, he submitted "*several* questions" to the seafaring people there, and put and received the "*two*" following questions and answers:—Question: "How soon after high water does the stream begin to run down Channel?" Answer: "In *two hours*." Question: "How long afterwards does it continue to run down Channel." Answer: "*Five hours*." The statements in the answers selected (for we evidently have not the whole) are entirely at variance with the actual observations which will be laid before the reader presently; and it would seem that the Professor himself placed no great faith on the answer that the stream began to run

"I have had the good fortune to obtain the information I desired from this authority. I learn that the tides at Dover are very complicated; that the stream begins to run down Channel at half-ebb, that is, about three hours after high-water, and that it continues to run down Channel until half flood; that the stream begins in-shore about an hour sooner than in mid-channel, with spring-tides, and with neap-tides is often two hours earlier in changing. From this statement it follows that from the nine hours intervening between the time of high water and the return of the flood up the Channel we must deduct, under common circumstances, one hour and a half to satisfy the in-shore difference. The interval remaining is seven hours and a half, the exact interval which passed between high water and the three o'clock when Cæsar started. May not the state of the tide have been one of the reasons which made him remain so long and no longer at his anchorage?"

"But the matter was brought to a crisis by the following question:—

"Many years ago some transports lay off Dover, say, half a mile from the shore; on that day it was high water at 7.31 A.M.; the transports lay off till 3 P.M., and then sailed with the tide: which way would they go, up the Channel, or down the Channel?"

"The answer was as follows:—

"On the day in question the transports, if started with the tide in their favour at 3 P.M., with a 7.31 A.M. tide, must have gone up Channel on the first of the flood, and proceeded to the eastward."

down Channel “*two hours*” after high water; for he remarks himself, directly afterwards, “I had reason to believe that, though the tide in mid-channel turned four hours after the Folkestone high-water, the tide in-shore turned *two hours and a half* after that time.” However, two hours and a half is much under the mark. But further, he acquaints us (and this is the main anchor by which he holds) that “there is one person above all others, at Dover, on whose judgment reliance would be placed”—“accustomed to cross the Channel”—having “a personal knowledge of the currents,” and “connected by long experience with the harbour and offing of Dover,” &c., and that the matter was brought to a crisis by the following question:—

“Many years ago some transports lay off Dover, say half a mile from the shore; on that day it was high-water at 7.31 A.M.; the transports lay off Dover till 3 P.M., and then sailed with the tide. Which way would they go—up the Channel or down the Channel?”

The answer was as follows:—

“On the day in question, the transports, if started with the tide in their favour at 3 P.M., with a 7.31 A.M. tide, must have gone up Channel on the first of the flood, and proceeded to the eastward.”

I confess that this question and the answer to it greatly surprised me, and made me think that, after all, the local information obtained by myself, and even the statements of the Admiralty Tables*, might be

* “I have for years directed my attention to the turn of the tide, and have tested the time of it by noting when a vessel, brought to in the offing and waiting for the stream, would swing at her anchor, and I never knew it vary half an hour from the time given in the Admiralty Tables. There is but very little difference in the stream in-shore and in mid-channel between Sandgate and Dover.”—*Note by Mr. Elliott, of Dymchurch, the Engineer of Romney Marsh.*

wrong. I had no alternative, therefore, but to test the assertion by actual observation. For this purpose, I wrote to my kind friend, Mr. Barton, of Dover, who has so repeatedly lent his assistance, to employ some experienced pilot or fisherman to note for me the time of high water at Dover, with the turn of the current, for a month, and the following table was forwarded to me* :—

Date.	Wind.	High Water at	Direction of current.	Continued.
1860.				
Nov. 28.	East.	10.55	East.	3 $\frac{1}{2}$ hours.
" 29.	East.	11.30	East.	3 $\frac{1}{2}$ "
" 30.	S. by E.	12.10	East.	3 $\frac{1}{2}$ "
Dec. 1.	S. by W.	12.40	East.	3 $\frac{1}{2}$ "
" 2.	E.S.E.	1.20	East.	3 $\frac{1}{2}$ "
" 3.	E.S.E.	2.10	East.	3 $\frac{1}{2}$ "
" 4.	S.E.	3.10	East.	3 $\frac{1}{2}$ "
" 5.	W.	4. 0	East.	3 $\frac{1}{2}$ "
" 6.	S.S.W.	5. 0	East.	3 $\frac{1}{2}$ "
" 7.	S.S.W.	5.50	East.	3 $\frac{1}{2}$ "
" 8.	S.S.W.	6.50	East.	3 $\frac{1}{2}$ "
" 9.	S.W.	7.30	East.	3 $\frac{1}{2}$ "
" 10.	N.N.W.	8.30	East.	3 $\frac{1}{2}$ "
" 11.	N.	9.30	East.	3 "
" 12.	N.N.E.	10.20	East.	3 "
" 13.	E.	11.15	East.	3 $\frac{1}{2}$ "
" 14.	E.	12. 0	East.	3 $\frac{1}{2}$ "
" 15.	E.N.E.	12.45	East.	3 $\frac{1}{2}$ "
" 16.	N.E.	1.25	East.	3 $\frac{1}{2}$ "
" 17.	E.N.E.	2.10	East.	3 $\frac{1}{2}$ "
" 18.	N.	3. 0	East.	3 $\frac{1}{2}$ "
" 19.	S.E.	3.50	East.	3 $\frac{1}{2}$ "
" 20.	N.E.	4.35	East.	3 $\frac{1}{2}$ "
" 21.	N.E.	5.20	East.	3 $\frac{1}{2}$ "
" 22.	N.E.	6.10	East.	3 $\frac{1}{2}$ "
" 23.	N.	6.40	East.	3 $\frac{1}{2}$ "
" 24.	N.	7.40	East.	3 $\frac{1}{2}$ "
" 25.	E.	8.30	East.	3 $\frac{1}{2}$ "

* One column, relating to the *fall*, and not to the *current* of the tide, has been omitted as irrelative, and tending only to confuse.

It will be seen from this table that, at the time of high water, the tide is running eastward, and continues usually to run so for three and a half hours, so that if it was high water at 7.31 A.M. the tide would run east till eleven, and then would turn west, and continue to run so (even according to the Professor) for *five* hours, but in reality much more, so that at 3 o'clock P.M., with high water at 7.30 A.M., the tide could not, as he supposes, be running *east*, but would be running west.

The preceding table was, in some respects, defective, as not showing the duration of the current westward. I had also omitted to give any specific direction as to the distance from the shore at which the observations were to be made. I therefore forwarded another table to be filled up from actual observation, and the result was as follows* :—

Date.	Wind.	Time of High Water at Dover Pier.	Time when Tide turned west, half-a-mile from shore.	How long continued west.	Time when Tide turned east, half-a-mile from shore.
1861.					
July 1.	W.	5.30	9. 0	2.10	2.30
„ 2.	S.W.	6.30	10. 0	3.15	3.30
„ 3.	N.N.W.	7.15	10.30	4.15	4.30
„ 4.	S.S.W.	8. 5	11.10	5. 0	5.20
I	II	III	V	VI	IV

* The table was returned, with the columns as I had arranged them, in the order of the numbers at the foot; but, for the sake of clearness, the columns have been printed as they ought to have been arranged, viz. so as to show the successive changes *seriatim* as they occurred.

It will be observed that, in the last column but one, the seven first items indicate the *hour* when the current *ceased* to run west, while all the other items in the same column indicate the *duration* of the current west. Both exhibit the same result under different forms.

Date.	Wind.	Time of High Water at Dover Pier.	Time when Tide turned west, half-a-mile from shore.	How long continued west.	Time when Tide turned east, half-a-mile from shore.
1861.					
July 5.	S.W.	9. 0	12. 0	5.50	6.20
" 6.	S.W.	9.50	1. 0	6.50	7.20
" 7.	W.S.W.	10.30	1.40	7.40	8. 0
" 8.	S.W.	11.10	2.15	5½ hours.	8.40
" 9.	N. by W.	11.50	3. 0	6¼ "	9.40
" 10.	S.W.	12.30	4. 0	5¼ "	10.10
" 11.	W.S.W.	1.10	4.40	5½ "	10.40
" 12.	S.W.	1.50	5.20	5¾ "	11.15
" 13.	S.S.W.	2.35	6. 0	5¾ "	12. 0
" 14.	S.S.W.	3.25	6.45	5¾ "	12.40
" 15.	W.S.W.	4.20	7.40	5¼ "	1.30
" 16.	W.S.W.	5.10	8.30	5½ "	2.20
" 17.	W.S.W.	6.10	9.30	5½ "	3.20
" 18.	S.W.	7. 0	10.30	5 "	4.10
" 19.	S.W.	8. 0	11.30	5 "	5. 0
" 20.	S.W.	9.20	12.30	5 "	6.20
" 21.	S.S.W.	10.20	1.15	5 "	7.15
" 22.	S.W.	11. 0	2.10	5¼ "	8. 0
" 23.	W.S.W.	11.40	3. 0	5¾ "	8.40
" 24.	S.W. by S.	12.30	3.45	5¼ "	9.40
" 25.	S.W.	1.15	4.40	5¾ "	10.20
" 26.	W.	1.50	5.20	5¾ "	11.10
" 27.	W.	2.30	6. 0	5¾ "	11.50
" 28.	W.N.W.	3. 5	6.35	5¾ "	12.25
" 29.	W.	3.50	7.10	5¼ "	1. 0
" 30.	W.	4.30	7.50	5¼ "	1.40
" 31.	W. by S.	5.20	8.35	5½ "	2.30
I	II	III	V	VI	IV

From this table it appears that, at the time of high water, the tide, at half a mile from the shore off Dover, is running east, and continues to run so from three hours to three hours and a half, say three and a quarter, and that it then runs west from five to six hours, say five and a half, so that if it were high tide at 7.31, it would run east till about 10.46, and then run west till about 4.16. Again, the shortest interval at which the tide,

according to the table, turns east after high water, is 8h. 55m., and the longest 9h. 50m. With high water, therefore, at 7.31 A.M., the tide could not turn east at the earliest until 4.26 P.M., and at the latest not until 5.21 P.M. Clearly, therefore, at 3 P.M. the tide would be running west towards Romney, and not east towards Deal.

At the same time that I forwarded the last table to be filled up, I thought it right to check these limited observations by general experience, and I therefore requested my friend to put the necessary questions to some one upon whose nautical and scientific knowledge he could safely rely ; and Mr. Druce, the resident engineer, on being applied to for the purpose, has been kind enough to furnish the following information ; and I beg here to return my grateful acknowledgments for the very careful and precise manner in which he has answered the queries.

Harbour of Refuge, Dover, Aug. 1, 1861.

QUESTIONS.

1. Many years ago some transports lay off Dover, say half a mile from the shore. On that day it was high water at 7.31 a.m. The transports lay off till 3 o'clock p.m., and then sailed with the tide. Which way did they go : up the Channel or down the Channel ?

2. How soon (usually) after high water at Dover Pier does the tide, at *half a mile from the shore*, turn at *springs*, and in which direction ? and how long does it run in that direction ?

ANSWERS.

1. High water at 7.31. Consequently the tide ran *eastwards* till a little after 11, and then to the *westward* till about 5. The transports would therefore go to the *west* at 3 P.M., or down Channel.

2. At 3.40, after high water at the *springs*, the tide begins to run downwards, or to the *west*, and flows in that direction for rather more than six hours.

3. Same question at neaps.
3. At neap tides the ebb stream begins about ten minutes sooner after the time of high water than at the springs, the direction of the stream being, in ordinary cases, the same (see No. 6).
4. How soon (usually) after low water at Dover Pier does the tide, at half a mile from the shore, turn at springs, and in which direction? and how long does it run in that direction?
4. At 2h. 45m. after low water the stream begins to run eastward, and runs in that direction for about 6h. 20m.
5. Same question at neaps.
5. At neap tides the stream begins about the same time, and flows for about six hours.
6. How much may the turn of the tide be retarded or hastened by accidental causes, as wind, &c.?
6. The tides in the Channel are influenced to a very great degree by the weather outside the Channel, and especially by the wind and its direction. The effect is felt considerably more at the neap than the spring tides, half an hour being, perhaps, the difference at the spring tides; but at the neap tides very strong wind will almost neutralise the stream at the surface.
7. What difference is there between the turn of the tide in-shore, and the turn of the tide half a mile from the shore, and the turn of the tide in mid-channel?
7. In mid-channel the flood stream turns about $1\frac{1}{2}$ h. later than near the shore.
8. Is there any difference between the turn of the tide off Dover and the turn of the tide off Folkestone? and what is the difference?
8. The stream turns at Folkestone about five minutes before it does at Dover.

EDWARD DRUCE, Resident Engineer.

Thus, rejecting minute differences, we find the two

series of actual observations and the answers of Mr. Druce in harmony with each other, and they establish in general terms these facts, that the tide sets east for about three hours and a half after high water, and then after slack water for a quarter of an hour sets west for five hours and a half; and then after slack water for a quarter of an hour turns east. If so, on the assumption that high water was at 7.31, the tide would not turn east until about 5 P.M. Under any circumstances we could not allow less than three hours for the run eastward after high water, or less than five hours for the run westward, and then, between the two would be slack water for a quarter of an hour, and again, after the run westward, would be slack water for another quarter of an hour, before the turn eastward. Thus, even by this computation, the turn eastward in the afternoon with 7.31 high tide would not take place till 4 o'clock. It will be observed that Mr. Druce allows somewhat more than three and a half hours after high water* for the stream eastward, and then somewhat more than six hours for the stream westward. These I believe to be the most correct estimates; and with these data, with a 7.31 high tide, the stream would not turn west until after 5 P.M.

Hitherto I have assumed that it was high water at Dover on 27th August, B.C. 54 (the fourth day before the full), at 7.31 A.M., and my reason for adopting this time

* Captain Washington, in his Report to the Commissioners appointed to inquire into the state of Tidal Harbours, states that "the stream of tide runs for *four* hours to the N.E., after it is high water at Dover Pier." The observation appears to have been made "at about three quarters of a mile off shore," and he adds the rate of the tide—"on springs three miles and a half, on neaps two miles; and it sets fairly along shore both on the flood and on the ebb."—See *Report of Commissioners, Appendix*, pp. 196, 198.

was that in August of the year when I wrote my essay it was high water at Dover on the fourth day before full moon in August (Cæsar's month), at 7.31 A.M. The Professor followed me in this, observing: "There can be no difference of opinion as to the time of high water. On the 27th of August, 55 B.C., it was 7.31 A.M." However, this requires some qualification. High water at any place at the full of the moon, or on any particular day of the moon's age, is not the same in different months of the same year, and is not the same in the same month of different years. As the tides are regulated by the joint action of the sun and moon, they vary according as the moon is in the same plane with the earth, or is above or below it. In the former case the full force of the joint attraction is exerted; in the latter, it is proportionally weaker. Again, it is material to consider in what part of her orbit the earth is, as the earth and her satellite are at one period of the year much nearer to the sun than at another. In short, the exact time of high water at a particular place on a particular day is matter of abstruse calculation. At the same time, as the sun, moon, and earth resume as nearly as possible their relative positions, after a cycle of nineteen years, called the Metonic cycle, if we can ascertain the variations in the time of high water in August for every year during that interval, we shall see the maximum and minimum amount of variation, and thence collect the mean. The following table represents the time of high water at Dover on the day of the full moon in the month of August for nineteen years, viz. from 1842 to 1860, both inclusive.*

* For this table I am indebted to Mr. Hastings Parker, of the Admiralty.

Year.	Date of Full Moon in August.	Time of Full Moon.	Time of High Water. a.m.
1860.	31.	8.57 a.m.	11. 5
1859.	13.	4.34 p.m.	11. 2
1858.	24.	2.12 p.m.	11. 0
1857.	5.	6.28 p.m.	10.50
1856.	16.	5.55 p.m.	11. 4
1855.	27.	1.21 p.m.	10.41
1854.	8.	1.17 p.m.	10.32
1853.	18.	10.55 p.m.	10.30
1852.	29.	3. 6 p.m.	10.58
1851.	11.	9.43 p.m.	10.48
1850.	22.	9.12 p.m.	10.50
1849.	4.	3.52 a.m.	11.15
1848.	14.	8.16 p.m.	10.35
1847.	26.	6. 9 a.m.	10.47
1846.	7.	6. 0 a.m.	10.46
1845.	17.	1.17 p.m.	10.33
1844.	28.	0.34 a.m.	11. 6
1843.	25.	2.35 p.m.	10.37
1842.	21.	2.14 a.m.	11.18

From this table it will be seen that the earliest time of high water at Dover at the full is 10.30, and the latest is 11.18, giving a difference of 48 minutes, and the mean time of high water at Dover at the full is 10 hours 51 minutes. As it was full moon in August, B.C. 55, on 31st August at 3 A.M., the nearest high water, viz., in the evening or night of 30th August would be at the earliest 10.30 P.M., and at the latest 11.18 P.M., and, if we take the mean, at 10.51. High water on the morning of 27th August would be seven tides previously, or 2h. 48m. earlier, that is at 7h. 42m. A.M. at the earliest*, and 8.30 at the latest, and at 8.3 for the mean.

* In August 1859 it was high water at Dover on the 9th of August (the full being on the 13th of August) at 7.31 A.M., the time adopted in my essay. This is still earlier than 7.42, and the reason is that the full moon on the 13th of August 1859 was at 4.34

Assuming that the tide ran east for $3\frac{1}{2}$ hours after high water, and then, after a quarter of an hour's slack water, ran west for $5\frac{1}{2}$ hours, the tide on 27th August would, at the earliest, run east till 11.12, and then after slack water would run west till 4.57 P.M., and at the latest would run east till 12 at noon, and then after slack water would run west till $5\frac{3}{4}$ P.M., and as a mean would run east till 11.33, and then after slack water would run west till 5.18, so that in no case could Cæsar, if he went with the tide at 3 P.M., have gone eastward. Even if we allow half an hour's difference for the effect of the wind, he still at 3 P.M. could not have sailed, with the tide, towards Deal.

All the arguments in favour of a debarcation at Hythe are, of course, so many objections to a debarcation at Deal, but the latter theory is open to some difficulties peculiar to itself, and to which they who support this hypothesis should direct their attention.

1. Supposing Cæsar, when in Gaul, to have made himself *acquainted* with the coast immediately opposite, either from the survey of Volusenus, or from the interview which he had with the merchants, what advantage, in the first place, could Cæsar have discovered in Deal over Hythe? If, indeed, he sailed from Wissant, the distance to Deal and to Hythe would be about equal, but, if, as is the general opinion, and, I think, correctly, he embarked at Boulogne, Hythe would be much nearer than Deal, and was the natural port for vessels from Boulogne. Besides, Hythe possessed a

in the afternoon, whereas on the 31st of August, B.C. 55, it was full moon at 3 A.M. In my essay, therefore, I had assumed against myself that high water on the 27th of August, B.C. 55, was earlier than it could possibly have been.

haven, but Deal did not ; and though the winding harbour at Hythe was quite unequal to the accommodation or even reception of a numerous war-fleet (*ad majorum navium multitudinem*, iv. 20), yet it could not fail to be extremely useful for keeping up a constant communication with the continent from which Cæsar's supplies were to be drawn.

2. If we assume that Cæsar was wholly *ignorant* of the British coast (which is somewhat countenanced by the fact that he made for the cliffs which were visible from Boulogne, though when he arrived they presented no convenient place of debarcation), in this case it becomes almost impossible that he should have sailed to Deal and not to Hythe, for on approaching the coast, and as he lay at anchor off Folkestone or Dover, he could not have discerned the level at Deal, so that if he sailed in that direction he must have done so at a venture upon speculation. How improbable this is when the favourable landing-place of Hythe was distinctly visible from his moorings, and lay within an easy distance ! How could he have neglected a shore which suited his purpose, and was near at hand, to go in search of one the very existence of which was problematical ?

3. I think it established beyond all controversy that if Cæsar sailed with the tide at 3 P.M. he must have proceeded not eastward, but westward. If, therefore, it be contended that he sailed towards Deal, a new interpretation must be given to the Commentaries, viz. it must be insisted that Cæsar not only waited till 3 P.M. for the arrival of the whole fleet, but that the words "His dimissis, et ventum et æstum uno tempore nactus secundum" (iv. 23), imply a further interval of about two hours, that is until about 5 P.M., at which time the

current *might* have turned eastward. This interpretation, so far as I am aware, has never been before suggested, and is certainly not the natural one. He waited, we read, till 3 P.M., and employed the *interim* in giving instructions to his officers, and then — His dimissis, &c. Thus the dismissal of the officers was unquestionably at 3 P.M., and the direction of the wind and tide is spoken of in one breath as contemporaneous with it. Had another interval of two hours occurred, Cæsar could not fail to have mentioned it.

4. In the next place the chalk cliffs reach all the way from Dover to Walmer, though between Kingsdown and Walmer they are comparatively low. From Walmer to Deal there are no cliffs, but the land is neither flat nor open, and therefore not in accordance with Cæsar's description of the landing-place. If, therefore, Cæsar sailed eastward, he must have *passed* Deal, and consequently the moorings from which he started, and which were eight miles off, must have been, not, as commonly supposed, at Dover, but considerably to the east of it.

5. On his second expedition, Cæsar set sail at sunset (about 8 P.M.), with a gentle south-west wind, and held on his course till midnight. The wind then dropped, and the tide drifted him so far up Channel, that when morning broke he descried Britain on his left hand. The tide then turned, and he followed it back with oars to his former place of landing (*æstûs commutationem secutus*, v. 8.) Assuming that Cæsar sailed from Boulogne (and the argument applies almost equally to an embarkation from Wissant), a gentle south-west wind, from 8 P.M. to 12 at night, would carry him, if he steered for Deal, nearly halfway across. He was then borne out of his course by

the tide, the set of which in this part is from S.W. to N.E., and the greatest velocity of the tide is, according to the Tidal Tables, 3·3 knots an hour, or about three miles and three quarters an hour. The drift would, of course, be less than the velocity, and we may allow for this about three miles an hour. From midnight till daybreak, at 4 A.M., would, therefore, give a drift of twelve miles. To find then the position of the vessel at 4 A.M., we must draw a straight line from Boulogne to Deal, and then another line twelve miles long, from about the middle of the Channel, at right angles, in a north-eastern direction. The end of the latter line will represent the extreme limit of the drift. Now, if we look at the bearings of this point with reference to Deal, I very much doubt whether, when the tide turned, the fleet, with a tide running south-west at the rate of three miles and three quarters an hour, *could*, by rowing only, without any wind, have reached Deal at all; but, certainly, if they made for Deal, they could not be said to *follow* the tide which was running south-west. Their course must have been north-west, and across, if not actually against, the current. This is the argument which induced the learned D'Anville to consider the landing of Cæsar at Deal untenable.

6. Again, if Cæsar from the extreme point of his drift made for Deal, how could his fleet have crossed the Goodwin Sands, which lay between him and Deal? What was the state of the tide as regards flood or ebb? This we can ascertain from the remark that Cæsar availed himself of the turn of the current back, *i. e.* the turn of the current westward. This takes place, as we know from the Admiralty Tables and the preceding observations, at about three hours and a half after

high water. Cæsar, therefore, began his course towards the old landing-place at three hours and a half after high water, and as the passage must have occupied some hours, and he arrived at noon, low water must have occurred by the way. How then could a fleet of eight hundred vessels, either at low water or just before or after it, have crossed the Goodwins without a single wreck? If, on the contrary, as we suppose, Cæsar "followed the tide" in the proper sense of the word, *i. e.* in a south-west direction towards Hythe, he would altogether avoid the Goodwins. This may have been one reason, in addition to the convenience of Hythe in itself, why under the circumstances he preferred the locality of his former debarcation.

7. The shore where Cæsar landed, shelved so gradually into the sea, that with even a three hours' flood (*viz.* at 5 P.M., with high water at 8 A.M.) the transports could not approach terra firma; and though the triremes could advance nearer, the boats only could touch the beach (*iv.* 24). There is also mention made in Valerius Maximus (*iii.* 2, 23) of some islets close at hand, and almost all the writers refer to the marshes; and the British *essedæ*, or war-cars, are described in the first invasion, when Cæsar did not move from his camp, as running down steep precipitous places. We have seen that all these facts agree remarkably with the shore at Hythe, but at Deal, the beach, instead of sloping gradually, descends so steeply that with a three hours' flood transports can come up to the water's edge; and as for any islets, or marshes, or declivities in that quarter, I am not aware that the existence of them has ever been suggested.

8. Cæsar marched twelve miles from his camp on the sea shore, and then came to a river. The common

idea of those who support the hypothesis of Deal is, I believe, that the river referred to was the Stour. This can never be, for the Stour at Canterbury is distant eighteen miles English, or nearly twenty miles Roman. The Stour does not come within the compass of twelve miles until it approaches Stourmouth; and in the days of Cæsar the sea flowed up to Stourmouth (as the name implies), and round the Isle of Thanet.* It is inconceivable that the Britons could have marched in this direction, as they would, of course, retreat upon Canterbury, their capital; and this is confirmed by the expression of the Commentaries, that they retired from the shore into the interior, se in superiora loca abdiderant (v. 8). The only river, therefore, that would at all answer the requisites is the Little Stour, which runs by Patricksbourne, Beakesbourne, and Littlebourne, and of these three places I should give the preference (if to any) to the last, as lying on the high road from Deal to Canterbury. The Little Stour, however, is, after all, but a brook, and too insignificant to have been designated by Cæsar as a river.†

* At the end of the sixth century (A.D. 597), this strait, called the Wantsom, was three furlongs across, and only fordable in two places. "Tanatos insula . . . quam a continenti terrâ secernit fluvius Vantsumu qui est latitudinis trium stadiorum, et duobus tantum in locis est transmeabilis."—*Bede*, lib. i. c. 25.

† My note of the above places, on a visit in September 1861, is this:—

Littlebourne.—The stream at the Priory, where, apparently, it is ornamental water, and made to assume the most imposing aspect, is about twelve paces wide and a foot deep, and creeps along at the rate of less than half a mile an hour. The ground rises from it both east and west; and on the west, at the distance of less than half a mile, is a wood called Pine wood, lying on the north side of the road. I observed no signs of entrenchments there, unless the deep ditch between the road and the wood can be classed under that category.

The ground from the wood to the river is a gentle slope, and tolerably clear and open.

Beakesbourne.—The road from the west descends to it down a deep hollow road, and there is a thick wood on the north side at about half a mile distance from the stream. As the wood is not noticed in the Ordnance map, it is probably very small. The space between the wood and the river is remarkably clear and open. The stream at the bridge is only four paces wide and half a foot deep, and runs less than half a mile an hour.

Patricksbourne.—Stream somewhat less, but swifter. No high ground on the west side. Much wood in the neighbourhood, and reaching to the stream itself.

N.B.—The notion of some is that Cæsar and the Britons met at *Kingston*. This is quite untenable, as at Kingston, in summer, so far from there being a river, there is no running water at all,—a mere dry channel serving to convey the winter floods to the Little Stour.



NOTES.

Page 2.

That Cæsar expected to meet with gold in Britain may be inferred from the language of Cicero: "They have found that there is not a scrap of gold in the whole island." (Cic. Ep. Attic. iv. 16.) And again, "I hear that in Britain is neither silver nor gold." (Cic. Ep. Div. xxvii. 7.) Cæsar himself attests that their coinage was not silver or gold, but either copper or stamped iron. "Utuntur aut *ære*, aut taleis *ferreis* ad certum pondus examinatis, pro nummo." (Bell. Gall. v. 12.) However, silver has been obtained in Britain from very ancient times, and a gold mine is now in operation at Llanaber, in Merionethshire, and yields a considerable profit to the adventurers.

Page 13.

There is another conclusive argument against Dunkirk and Gravelines, and even Calais, which I cannot state better than by an extract from a little book placed in my hands by a zealous antiquary, Mr. Nathaniel Gould, written by the late John Dougall, and intitled, "Observations on the Port of Gaul from which Cæsar sailed on his Expedition against Britain." The tract was never published, but was printed and circulated after his death by his widow. "Allowing," Mr. Dougall writes, "that turning up to windward had been occasionally practised by the Romans with their lee-boards as now, and long in use among the Dutch, still no commander of a numerous fleet of transports, destined for a hazardous expedition, would ever have gone to sea with a contrary

wind." . . . "From the Liane (Boulogne) to the South Foreland the true, not the magnetic course, is about N.N.W., or two points to the westward of north. Had the wind been on the beam, as it is called, or perpendicularly to the course of the fleet, it must have blown from W.S.W. But such a wind could not be regarded by Cæsar as quite 'fair, favorable, and proper for him.' We may, therefore, allow it to have blown from a quarter or two points still further to the southward, or from S.W. With this last wind, and lug, or, perhaps, latine sails and oars, the Roman fleet might have easily run from the Liane to the South Foreland, or even to the ancient inlet of Dover. . . . The south-westerly winds blow in the British Channel on an average 120 days, or for one third part of the year. . . . From Calais to Dover the course is nearly W.N.W., or within six points of the wind from the S.W. . . . No ancient fleet of transports, or even of war-galleys, departing from the port of Calais, had it existed in Cæsar's time, could ever have arrived at Dover, or indeed at any point whatever of the coast of Kent. If this be true with respect to Calais, the objection becomes proportionally stronger if applied to any other point of the Morinian coast still further eastward from the narrow pass between Grisnez and Dover cliffs."

Page 15.

As to the similarity of sound between *Portus Itius* and *Wissant*, the argument cannot carry the least weight, as it is well known that *Wissant* is not derived from *Itius*, but is a corruption of the Dutch *Wit-sand*, or white sand, which is there so conspicuous.

Page 20.

According to the Admiralty charts, the exact distance from the mouth of Folkestone Harbour to the mouth of Boulogne Harbour is thirty statute miles and 2622 feet, or thirty and a half statute miles. This measurement has been kindly furnished to me by Mr. Hastings Parker of the Admiralty.

Page 21.

As to the exact distance of Ambleteuse (see ante, p. xv.), Mr. J. Dougall makes the following just observations upon the relative positions of the Portus Itius and the Portus Superior: "From the Liane to Grisnez the coast lies from S. to N. When the S.W. wind blew, therefore, no ancient ship could possibly sail along it from N. to S. Had that farther place or port been capable of receiving a numerous fleet, at the same time that a voyage from it must have been eight miles shorter than that from the port where Cæsar embarked, he would unquestionably have selected it. That he did not select it is therefore a proof that the farther port was quite unfit for his purpose. The bold cliffs of the Morinian coast continue for two miles to the northward of the Liane or of the harbour of Boulogne. Then the shore lowers down to the mouth of the little river of Wimereux, at which the sandy downs re-appear. They extend beyond Ambleteuse at the mouth of the Slacq, and terminate at Andreselles, a fishing village seven miles from the entrance of the Liane: seven English miles are about seven and three quarters Roman; but this is the direct lineal distance along the beach. By the land road the distance from Boulogne to Andreselles is nine English, or nearly ten Roman miles. Besides the excess of the distance the stream at Andreselles is a mere brook. The Slacq is much better adapted to form a small port accessible by ancient ships, for at high tides the water rises in it to thirteen feet. . . . In front of the entrance extends St. John's roadstead, which affords good anchorage in winds from the N.E., E., and S.E. At the entrance is situate Ambleteuse, six and a half Roman miles along the coast, but nearly eight by the road. The lowness of the shore and the depth of the water in the river, made it peculiarly proper for embarkation of cavalry."

Page 23.

On the subject of the estuary of the Liane, the late Mr J. Dougall writes: "The whole course of the Liane, from the

village of the same name, where its branches are collected into one bed, is in right lines between seventeen and eighteen English miles, or a little more than seven post leagues of France, flowing everywhere through a hilly country. The Liane is confined in a narrow hollow until near its first angle; then the first angle gradually widens by the retreat of the rising grounds on towards St. Leonards, and from that village to the sea the course of the river presents the form of a spacious well-sheltered haven. The haven, however, now unites with the sea sooner than in ancient times. . . . How much the Channel has gained on the land since the days of Julius Cæsar is a matter wholly conjectural. But if we compute on the result of the experiment made at Tréport on the coast of Picardy, we may, perhaps, arrive at something near the truth. It appears from that experiment that the waves consumed seventeen feet of solid building stone in thirty years, or more than half a foot yearly. At that rate the encroachment would, in 2000 years, exceed 1100 feet. But if we consider that the waves and winds act almost perpendicularly against the cliffs of Boulogne, while they act but very obliquely on those of Tréport; that the cliff of Tréport is of a nature much more compact than those of Boulogne; when it is recollected that no vestige now remains of the projecting cliff which supported the Pharos of Boulogne, although 170 years only have elapsed since its fall, less than a quarter of a mile cannot well be allowed for the advance of the waters at the entrance of the Liane. By so much, therefore, has the small bay which received the river now lost of the depth it possessed when Cæsar sailed from it in his voyage to the British shore; by so much is that bay less adapted for the sheltering or anchoring a numerous fleet of such vessels as he employed. . . . The extent of the road or bay of Boulogne, from S.W. to N.E., is about three miles, and the tide, at low ebbs of new and full moon, falls back from the land about half a mile. . . . From the preceding observations, the valley of the Liane must, in ancient times, have formed an inlet or haven accessible to all tides, and consequently extremely commodious and secure for ships of anti-

quity which required but three or four feet in depth of water. The length of the haven was three miles, and its breadth gradually increased from 300 to 900 yards. With such dimensions the area of the haven would be 3,168,000 square yards, or somewhat more than an English square mile, which contains 3,097,600 square yards. If now we allow for each transport in the second fleet of Cæsar a space of thirty yards long and ten yards broad, the haven of the Liane would contain 1000 of such vessels. . . . A fleet of 600 flat-bottomed vessels, all moved by oars, must have employed several successive tides, after the troops and necessaries were embarked, to be able to get out of port. When all had quitted the haven they must have done as transports on any expedition now do. They must have anchored in the road at convenient distances, to keep clear of one another, to be in readiness to set sail and ply their oars together when the signal was displayed. Stationed in this way, Cæsar's fleet must have covered the shore all the way from towards the promontory, now Cape Alprech, on S.W., to the northern boundary of the bay in front of the Liane, a space of three miles."

Page 26.

The words of Cæsar are: "Eâdem nocte accidit, ut esset luna plena, quæ dies maritimos æstus maximos in oceano efficere consuevit." (Bell. Gall. iv. 29.) The Astronomer-Royal suggests that Cæsar may have had no almanack to indicate the day of full moon, and that as "the spring-tide is a day and a half later than the full moon," the day referred to may have been that of the spring-tide. This would be 1st Aug., B.C. 54; and the fourth day before it, or day of Cæsar's arrival, would then be the 28th August, and not, as we have supposed in the text, the 27th August. The only consequence would be, that on the day of Cæsar's arrival (28th August) it would be high tide about an hour later than on 27th August, *i. e.* about 9 A.M. instead of 8 A.M., and then, à *fortiori*, the tide would be running west at 3 P.M. I cannot,

however, assent for a moment to the notion that Cæsar did not know the actual day of full moon, or that he refers to the day of the spring-tide. The words are not “*luna plena, quæ maritimos,*” &c.; but “*luna plena, quæ dies maritimos,*” &c.

Page 33.

The length of the passage from Boulogne to Folkestone, viz. ten hours for the triremes and fifteen for the transports, was no doubt owing in great measure to the deflections in their route, caused by the set of the currents in the Channel. From midnight, when they started, till 6 A.M., the tide would be running west, and for the next six hours it would carry them east. Some time also must have been lost while they waited in the offing for the eighteen transports to join them from Ambletuse, but which they never did.

Page 35.

The following rules for ascertaining the time of high water at any particular place may be useful:

When the time of high water is given for any particular place in Tide tables, it is understood to be the time of high water at that place on the days of the syzygies, or of new and full moon, when the sun and moon pass the meridian of the place at the same time.

To find the time of *high water* at any place on any other day than at new or full moon, find the time of the moon's *southing* on the given day, and then add the time which the moon has passed the meridian on the full and change days (or the time given in the Tide tables for high water at the place on full and change days, when the sun and moon pass the meridian of the place at 12 o'clock) to make high water at that place, and the sum shows the time of high water on the given day.

e. g. At what time was it high water at London Bridge on the 25th December, 1784? The moon southered at 9h. 36m., to which add 3h. (the time of high water at London Bridge

on full and change days), and the sum shows it was high water at 0 h. 36 m.

To find the moon's *southing* or being in the meridian, multiply her age by four, and divide the product by five. The quotient gives the *hour*, and the remainder, multiplied by twelve, the *minutes*.

The *meridian* of a place is the great circle in the heavens of which the plane passes through the zenith and nadir of the place and the poles of the earth, and is called the meridian because when the sun is in this circle it is noon.

Page 42.

The author has since obtained more accurate information as to the early state of Romney Marsh, for which see ante, p. lii. A valuable paper upon this subject was contributed by Mr. Elliott, the engineer of the Marsh, to the sixth volume of the "Minutes of Proceedings of Institution of Civil Engineers," from which the following extracts are taken:

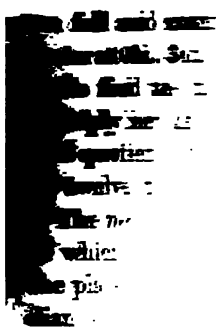
"No satisfactory account exists of when, or by whom, the Marsh was reclaimed from the sea; the Romans, however, have, in popular opinion, the credit of this great work; at all events, it is evident from recent discoveries, that they occupied a considerable portion of the country between Dymchurch and Romney, and there is reason for believing that it was in a habitable state at that early period. The remains alluded to, which were discovered whilst making some alterations in the line of the sea wall, extended over a space of several acres; they consisted of an enormous mass of pottery, from the coarsest unbaked kind to the finest Samian ware; much of it in a perfect state of preservation. The presence at this spot, of beds of very fine white clay and layers of clean sharp sand, would lead to the inference that it was the site of an extensive manufactory of pottery, particularly as the effects of fire are evident in all directions.

"These remains, taken in connection with the ancient Roman fort at the foot of Lympne Hill, on the borders of the Marsh, within a distance of five miles, and the Stone-street

Road, another Roman work, leading from thence to Canterbury, may fairly lead to the inference that the Romans were the originators of the work. But it is not quite so clear where this work was commenced, or how it was executed. It is probable that the sea was not absolutely excluded by the erection of Dymchurch Wall, but that, where the wall now stands, a natural barrier of shingle and sand was formed in the first instance, the sea still flowing over the land at the back, and that it was gradually restrained by the erection of cross walls or embankments stretching from this natural barrier up to the base of the hills.

“This natural barrier commenced at the chalk hills to the westward, and, before the waters of the Rother discharged themselves at Rye, formed a continuous ‘full’ of shingle from thence to Hythe, and also formed (prior to the extension of Dungeness Point) nearly a straight line of coast, from Hastings to Dover; a considerable line of this ancient coast may be plainly traced at the present day, extending a distance of eight or ten miles, from the eastward of New Romney to the westward of the town of Lydd, which was built about half a mile in advance of the first formed ‘full.’ That this line was formerly kept up across the bay of Rye Harbour, may be fairly inferred from the fact, that the old town of Winchelsea, which was destroyed by a great inundation in the reign of Edward I. (1250 to 1287), formerly stood about the centre of this bay, and most probably on the then line of coast.

“There is reason to believe that the shingle at Hythe was connected with that at Romney, on the line where Dymchurch Wall is now erected, as there are shingle banks running under and inland of the present wall, throughout its whole length, nearly at right angles to the line of coast, exactly in the position into which they would be thrown by an adverse wind and strong current on the end of the ‘full,’ while in a state of formation. The vast accumulation of not less than two square miles of shingle, between the eastern end of the wall and the town of Hythe, is worthy of attentive observation, as it is evident, from the position of the



...ingle, which all lie at right angles to
... a very strong current of water must
... and out of the great estuary which now
... as many of these 'fulls' are carried up-
... ters of a mile inland, in a continuous
... ident that the extension eastward of the
... y slow, as those inland, or right-angled
... close upon each other, with but just ridge
... t to define the course of formation. . . .
... tion must have been the work of ages, and
... g on, the sea was gradually raising the sur-
... sh, behind the 'full.' It is also worthy of
... land gradually falls from the line of coast,
... hills forming the northern boundary of the
... ur the foot of which are all the low lands. On
... tide, all the waters were, by this natural incli-
... e surface, directed to this part, thus forming
... posed to be the river Lymene, but which was
... the lowest part of the great estuary.
... was most probably the state of Romney Marsh when
... ns took possession of this country, or, at all events,
... t progressing towards it; and it must have offered a
... ducement to that enterprising people to obtain pos-
... of so large a tract of open country, when it is con-
... how slight would be the labour of bringing such
... into cultivation, and that all around was an extensive

Presuming this opinion of the origin and state of Romney
... sh to be correct, all the artificial works that would be
... cessary to shut out the sea, would be to erect walls run-
... ng from the 'full' to the hills, and evidence exists to
... ow that it was by such means the object was attained.

"The Rhee Wall, running nearly in a straight line from
Romney to Appledore, bears strong evidence of being a
Roman work; and it is, probably, at this spot that the main
work for excluding the sea was performed. It is evident
that in the construction of this work two objects were kept
in view; one to exclude the sea, the other to provide an easy

exit for the hill waters, and also a drain for the reclaimed land ; these objects were attained by a cutting about 80 feet or 100 feet wide, running the whole length of Rhee Wall, the parallel banks of which can still be plainly traced, and it was this cutting that, in the course of time, formed the haven and port of Romney.

“ It is further evident that Romney Marsh was reclaimed at once, from the fact that there is not a single internal wall of any description between Rhee Wall and Lympne, where it would appear that the eastern wall was built, although it is not so clearly defined as the other.

“ In the construction of Rhee Wall comparatively little labour was required, that part next the sea, by Romney, demanding little beyond cutting the dyke, the natural surface of the land being higher than most other parts of the Marsh; indeed, a considerable extent of land about Romney is considerably above high-water mark, and has always been exempt from the ‘ Wall Scott,’ paying for the drainage only. This high land is rather a remarkable feature, as it bears strong evidence of its being composed of the natural strata, the ‘ Hastings sand,’ consisting of sand of various shades of colour, from yellow to grey, interspersed with layers of iron-stone. It can be traced over a very considerable space, extending westward to Lydd, and northward towards St. Mary’s, and probably is the remains of an island in the bay between Hythe and Fairlight.

“ From Brenzett the Marsh gradually falls towards the hills, and in this part considerable labour was required in the construction of the walls, which are in many places from twelve feet to fifteen feet high ; this is particularly the case towards Appledore. This part, called ‘ Appledore Dowles,’ is at the present time the lowest part of the Marsh, and it can only be effectually drained by artificial means, which have from time immemorial been used for that purpose.

“ The course of the mass of shingle, on that part of the coast, appears to be invariably to the eastward, which is the direction of the flood-tide and of the prevailing wind. A considerable amount has been lost, both east and west of

Dymchurch, since the date of the survey (made A.D. 1617), while Dungeness Point has been extended considerably within the same time.

“ Under what circumstances and at what period that extraordinary formation took place, is a difficult problem to solve. It is very evident that at some period the line of coast was inland of the town of Lydd, which is now upwards of three miles from the sea.

“ It is worthy of remark, that the timbers, &c., from any wreck on the west coast, are generally carried round and landed on the east of Dungeness Point, proving that a very considerable eddy exists in that direction; the impetus given by the current in the main channel being evidently lost, and the force, or rather the loss of force in this eddy, causes the accumulation of shingle at, and round, the point to the eastward. No certain record has ever been kept of the increase of the coast line; but, from the best existing data, it appears to be about two yards annually, and allowing the accumulation to have been rather more rapid at first, say three yards per annum, a period of about 1900 years will have elapsed since the sea first left the original ‘ full ’ at Lydd. This would be about the time of the first landing of the Romans in this country, and it is not improbable that some of their works at the then Port of New Romney formed the nucleus of what is now Dungeness Point.”

Mr. Elliott has since been kind enough to furnish me with the accompanying maps of the Marsh, and also with the following well-digested notes explanatory of the times at which the different parts of the Marsh were inclosed. It will be observed, that subsequent investigation, through a period of fifteen years, has induced him to qualify some of his former statements. I cannot thank him too much for the time and extraordinary pains that he has bestowed upon this “ labor of love.” As regards the subject immediately on hand (The Invasion of Britain by Cæsar), it would be sufficient for me to elucidate the eastern end of the Marsh only; but the information which Mr. Elliott has supplied from the local records under his control and his own long experience is so

valuable, that I shall be doing a service as well to geology as history, by laying it before the public.

The first step towards the inclosure of the Marsh was the work of the elements, viz. the natural barrier formed by the shingle spit, which was gradually pushed along the southern edge of the Marsh from Romney to Hythe. As soon as the spit touched the hills at West Hythe Oaks, all entrance from the sea was barred, from Romney to Hythe, and the only opening was on the west. The exclusion of the sea on that side also was effected by the Rhee Wall from Appledore to Romney. 24,000 acres, now known as Romney Marsh Proper, were thus inclosed. This was most probably the work of the Romans, who were certainly long in the occupation of the Marsh, as is evident from the remains of Roman pottery found in all directions. It is particularly mentioned by Tacitus that the Britons were compelled by the Romans to labour in the embankment of the marshes. (Tac. Agric. cited by Dugdale.)

Recent investigations in taking a series of levels over the whole of Romney Marsh have established the fact, that the estuary must have been closed at the eastern extremity (where the Portus Lemanis is commonly looked for) many centuries before the sea was shut out from the area of Romney Marsh Proper; for at the extreme eastern end of Romney Marsh, by Hythe Oaks, the surface of the land is 18 inches higher than it is a mile westward, a state of things that could not have existed had there been any outlet towards the east *after* the closing of the Marsh westward. The inset and outset of the tides twice a day to and from the estuary would have counteracted the silting, and produced not an elevation, but a depression of the surface. There is found to be a regular and continuous fall of the land next the hills, from Hythe Oaks into Appledore Dowles, which was, and is to this day, the lowest part of the Marsh, being 6 feet 6 inches lower than the land at Hythe Oaks. There could have been no silting after the inclosure of the Marsh, and the present level is such as it was when the Marsh was reclaimed. For centuries, therefore, before this event, the eastern channel, from the estuary.

to the sea, had been blocked up. The barrier which sealed up the eastern mouth of the estuary was the accumulation of shingle from the west, and which long before the historic period had reached the hills at Hythe Oaks.

“Stuttfall Castle, at Lymne, is usually taken for the garrison of the *Portus Lemanis*, but was probably one of the *castra* referred to by Gildas as built in the reign of Theodosius the younger for the protection of the Saxon shore. If Romney Marsh, at the foot of the *castrum*, was dry land at that time, and occupied by the Romans (as we know to have been the case), Stuttfall could not have been the ‘*Portus Lemanis*’ of Roman times, as it was not accessible from the sea, and lay a mile and a half at least from it. The sea could not have flowed there without putting the whole of Romney Marsh Proper under water to the depth of eight or ten feet every spring-tide, a state of things that could not have existed without leaving some traces behind which could be seen at the present day.

A. D.
395-450.

“Lydd at this time was bounded on the north and east by the sea, as appears by the grant of King Offa to the Archbishop Janibert (see Somner’s ‘*Roman Ports and Forts*’), which proves that there was an opening to the sea from the estuary west of the Rhee Wall, between Lydd and Romney, and which the present surface of the land shows to have been the case. This is the opening probably to which Holinshed refers in speaking of the shortest route from England to the Main. After naming Dover and Sandwich, he says, ‘or some other places of the coast more to the west, as between Hide and Lid, to wit Romneie Marsh, which in old time was called *Romania*, or *Romanorum Insula*.’ There would have been probably from 15 to 20 feet water spring-tides at this opening, when the sea had full run over the Marsh and up the valleys into the Weald. There is at the present day a succession of ‘fleets,’ cut off from each other by a series of embankments for innings, but sufficiently continuous and connected to show that at one time they formed the bed of the then channel of the river from Appledore to Fairfield and Midley, and thence to the haven at Romney. These ‘fleets,’

A. D. 774.

which can now be traced several miles, are on an average 13 feet below high-water mark. They lie west of the Great Wall, shutting in Peckham's, St. Thomas's, Baldwin's, and Boniface's Innings.

A. D.
866-892.

"It was probably up this estuary that the Danes sailed when they destroyed Stone and Newenden, and it may have been up this estuary that the Danes tugged their 250 ships to Appledore.

A. D. 895.

"In this year, Somner says ('Roman Ports and Forts'), 'I find the first mention of Romney in a grant of land by Plegmond, archbishop of Canterbury, called Wesingmarsh, beside the river called Rumenia.' This Hasted takes to be the manor of Aghonie, which was given in A. D. 791 by King Offa to Christ Church, Canterbury. If this was so, all this refers to Old Romney, in which parish, about half a mile west of the church, Aghonie Court stands, where, in A. D. 1495, Thomas Goldstone, the prior, built a new hall and other apartments. It is evident that at this time (A. D. 895) neither Old nor New Romney was of much note, as no mention is made of the Danes having committed any mischief at either place, when passing to Stone and Appledore, only a few years before.

"Somner, speaking of Old and New Romney, assumes them to be the Old and New Lamport of more recent times. But this is a mistake: the manor of Old Langport (as it came to be spelt) lies near New Romney, but on the other side the estuary, which was then open to the sea (Hasted says near Belgar), whilst New Langport was west of Lydd, at Septvans Court, on the Beach Full opposite Scotney, where, Hasted says, Roger de Septvans died in 37 Henry III.

"Leland writes (A. D. 1509) of New Romney, 'The very town of Romney, and two miles about it, was always by likelihood dry land, and once, as it is supposed, the sea came about her, or the greatest part of her.' Romney, at high water, must have been on an island not more than 5 feet above high-water mark spring-tides, with a considerable strip of land about level with high-water mark, and extending towards Hope, being a tongue of land carried in by the stream entering the great estuary in very early times. It is

evident that *before* the erection of Rhee Wall the great run of the sea out and in was to the westward, towards Lydd. The small opening east of Romney was, at the time of building Rhee Wall, nearly swarved up, but it was necessary to exclude the sea by erecting an earth wall for about 40 rods, which is to be seen at this time.

“Romney, during the last 100 years, had become a place of some note, as may be gathered from Domesday Book; but it is very doubtful whether *Old* Romney was ever anything more than at present, as no disturbance of the soil exists as at other places where buildings had stood, and all to the west of Rhee Wall was under water at spring-tides up to the fifteenth century. A. D. 1086.

“The first innings of land west of Rhee Wall were made by the ecclesiastics. The famous Thomas à Becket, archbishop of Canterbury, led the way, and his innings are still known as ‘St. Thomas’s Innings.’ They lie immediately north and west of Old Romney. To show his connection and acquaintance with this part, in A. D. 1168, ‘He took boat secretly at Romney, minding to have escaped over, but he was driven back by a contrarie winde, and so compelled to land against his will.’ (Lambarde.) A. D.
1162-1174.

“Baldwin was archbishop A. D. 1184 to 1190, and his innings are called Baldwin’s Innings, unless, as is not improbable, these innings were made by Baldwin Scadeway, to whom ‘Wibert, a prior, gave, about A. D. 1150, as much land,’ Somner says, ‘about Mistelham, in the Marsh, as he could inne at his own cost against the sea.’ Somner says, ‘This Mistleham I take to be about Ebeney.’ But it is more likely to have been at Brookland, where the Innings of Baldwin lie, as in the early records of Walland Marsh, A. D. 1549, constant reference is made to land lying at Mistleham Street and Mistleham Lane, at Brookland. A. D.
1184-1190.

“Peckham was archbishop at this time, and he probably inned the small marsh near Midley. In the records of Walland Marsh, A. D. 1549, reference is made to this as Peckham’s Wall. A. D. 1229.

“Boniface, archbishop, probably inned the marsh adjoining A. D.
1240-1270.

ing Baldwin's about this period. It was now that the first great inundations took place referred to by all the early historians, and which stopped the entrance of the Rother at Romney, and opened another at Rhee. That the sea was not now entirely excluded is evident from two facts — first, from the wording of the inquisition of Nicholas de Hanlou (see *infra*); and, secondly, from the circumstance, that if it were not for the artificial walls erected, probably in the fourteenth century, across the mouth of the estuary from Romney westward to Belgar, the sea would still flow over and cover the whole of Walland Marsh. So far from the haven of Romney having been blocked up, as supposed, with shingle and sand by the sea itself, there would at present, but for the sea walls, be from seven to eight feet water in the haven to the north of Lydd at high-water spring-tides.

A. D. 1257. “ Henry III. issued his precept to Nicholas de Hanlou (who, Hasted says, lived at Court at Street Lyme) to inquire as to the best plan to restore the haven at Romney, then much injured by the great storm and inundation of the year before, recorded by Somner from an old French chronicle belonging to the church at Canterbury. Nicholas de Hanlou in his answer to this precept states that the haven could not be restored unless certain works were carried out. The words of Nicholas de Hanlou are, ‘that certain obstructions which were in the old course of the river of Newendene should be removed, and that a new channel should be made *near to the same old course*, viz. from a certain cross belonging to the hospital of infirm people at Rumenale (standing by Aghenepende) unto Effetone, and from Effetone to the house of William le Byll, and so to Melepend, and thence descending unto the said port; so that a sluice be made under the town of Apeltre for reception of the salt water entering into the said river by the inundation of the sea from the parts of Winchelsea, and for retaining thereof in its passage and recourse to the sea, to the intent that the same water might come together with the fresh water of that river by the ancient course unto the before-specified new course, and so by that passage directly to descend and fall into the said haven; and that

another sluice should be made at Sneregate, and another near to the said port, where that water might descend into the sea, for restraint only of the sea-tide on that part that it enter not into the said course, but reserving the ancient and oblique course from the said cross to the before-specified haven.' (Dugdale's 'Imbanking,' p. 20.)

"In the early records of Walland Marsh, A.D. 1549, constant reference is made to repairs of certain pindes or pendes (for it is there spelt both ways) in the common sewers. These are now known as pinnocks, or under-drains for conveying water under roads, &c. Aghenepend would therefore be Aghenepinnock. This pinnock would be the one shown in Poker's map of the Marsh, A.D. 1617, as lying under the wall between *Aghonie Marsh* and All Soul's College land, north-west of Lydd. The channel was to go from Aghenepend to Effetone. In Domesday map the manor of Effetone is shown as lying east of Lydd. The next point that can be at all fixed is Melepend, probably a pinnock at the extreme end of Millwatering Sewer, still further east of Lydd, towards the haven of Romney. From Melepend or pinnock it was to descend *obliquely* into the said haven. This would give a course from south-west to north-east from Aghenepend to Romney, and would pass obliquely into the haven of Romney.

"The object was to bring a vast body of water to bear upon the old channel and port to scour them. For this purpose a sluice, with folding-doors to open and close with the tide, was to be made at Appledore, to receive the salt waters from Winchelsea, and prevent their regress; and the waters thus accumulated, with those from the valley of the Rother towards Newenden, were to be conducted to the port by the following means:— In the first place, the old channel, from Appledore to the cross at Aghenepend, was to be cleared of the obstructions, and then a new cut was to be made from the cross to the port, through the mass of silt, which had no doubt been collected by a succession of storms during the previous years. In order that the water from Appledore might scour this channel and the port with the greatest effect, all other vents were to be stopped. A sluice, there-

fore, with folding-doors, was to be made at Snargate, to prevent the water from running at the *ebb* along the trench of the Rhee Wall, and another sluice at Romney, to prevent the water from passing up the trench of the Rhee Wall, at the *flow* of the tide; and thus all the water, both at ebb and flow, would be compelled into the new cut and the port.

A.D. 1288. "A commission was issued to John de Lovetot, 16 Edw. I., to oversee the banks within the county of Kent, and it is shown that 'there had been no certain law of the Marsh existing beyond the course of the water of that port (Romney) running from Snargate towards Rumenale, on the west part of the same port, till it come to the county of Sussex.' In this commission the trench of Rhee Wall, between Snargate and Romney, is not called or treated as the river Limen or Rother, but as the *course of the water* running from Snargate to Romney.

A.D. 1325. "Great complaints were made, 18 Edward II., and a commission appointed to inquire as to the cutting a trench between Appledore and the port of Rumenale.

"This complaint was between the commonalty of Romney Marsh Proper and the barons of the Cinque Ports, and was probably a question of drainage of Romney Marsh by Appledore Dowles, from which, as the lowest part of the Marsh, there must have existed an outlet for the fresh waters of Romney Marsh from very early times. The cutting the trench was, no doubt, the work of the barons of the Cinque Port of New Romney, and in some way interfered with the drainage of the lands in Romney Marsh. Dugdale, from whom this account is taken, observes, that the contention ran so high, that each party were preparing to fight it out; but that, as the king wanted both parties to fight for him just then, the inquisition was withdrawn.

A.D. 1339. "12 Edward III. Upon a writ of *ad quod damnnum* the jury certify, 'That it would not be prejudicial to the king, or any other, if licence were given to John, archbishop of Canterbury, and the Prior of Christchurch, Canterbury, to suffer an ancient trench, leading from an arm of the sea, called Apuldre, towards the town of Romeney, which passed through the proper soil of the said archbishop and prior, and which was then newly obstructed by the sea sands that ships



A.D. 1288.

A.D. 1325.

A.D. 1331.



could not pass that way as they had used to do, to be wholly stopped up and filled, so that they, the said archbishop and prior, might make their benefit thereof as they thought fit, in regard that there was a certain other trench, leading from the said arm unto Romeney, lately made by *the force of the sea*, by which the boats and ships might pass as they had wont to do by the other, before it was filled up.' (Dugdale's 'Imbanking,' p. 43.)

"This change was probably caused or completed by the great storm referred to by Lambarde as occurring in A.D. 1334, three years before. Somner takes this trench to be that by Rhee Wall; but it must be noticed that Somner, in reciting the grant of the trench, says, 'One part passed through the lands of Margurite de Passele.' Now Margurite de Passele, according to Hasted, was daughter and heir of Sir Thomas de Normanville, of Kenardington, who died 11 Edward I., possessed of the manors of Palestrie and Kenardington. Margaret, his daughter and heir, married Sir William de Basing, who died sheriff of Kent, 1315. The manor of Palestrie lay in the Isle of Oxney, and extended from Smallhythe to Eboney. As this manor of Passelie, or Palestrie, belonged to Margurite de Basing in her own right, in the grant she is styled Margurite de Passele, and not Margurite de Basing. South of Eboney lay the lands of the Archbishop and the Prior of Christ Church, as can be seen from the dispute at the innings of the Becard in A.D. 1339 (Dugdale's 'Imbanking,' p. 86); this would fix the limits of the lands of Margaret de Basing at Eboney. In giving the direction of the new trench lately 'made by the force of the sea,' Dugdale adds the name of the Abbot of Robertsbridge, as concerned in the new trench, *but not in the old*. The Abbot of Robertsbridge's lands lay about Fairfield Church and the Becard (now Becket), as is shown in the dispute before referred to at the innings of the Becard in 1339. This shows pretty clearly the direction of the new trench made 'by the force of the sea.' Taking Eboney as one point, and Fairfield Church as the other, we have the course of the stream south-eastward, which would be the direction of the chain of fleets before re-

ferred to, just outside (west) of the innings of Baldwin, Boniface, and St. Thomas to Agheniepend, and so by the course appointed by Nicholas de Hanlou in A.D. 1257, about eighty years previous, into the haven at Romney. It is worthy of note, that when the trench by Rhee Wall was given to the corporation of New Romney, 5 Elizabeth, 1562, it was not called the bed of the river Rother, but simply 'all and singular those lands called the land between the walls, extending from Romney to Redhill between two walls, one of which is called Romney Marsh Wall, and the other Walland Wall, which said land, lying between the said two walls, is in manner of a creek or waterway swarved or dried up.'

A.D. 1384. "In 7 Richard II. a commission was granted to examine the state of the sea walls at 'Lyd, Promhill, Midelea, and Old Romeney.' These must have been the walls of Aghonie Marsh, the innings of Peckham and St. Thomas, and the Rhee Wall from Old to New Romney. It is a great mistake to take the Midelea of Domesday for modern Midley, as in A.D. 1086 the site of Midley must have been all sea at high water spring-tides, and there could not have existed any place to find pannage for ten hogs. The position also in Domesday will not answer, for Midelea, if the bearings of the different manors are to be at all depended on (and the others in the Marsh are tolerably correct), would be at Brookland, and even there, where the pannage for ten hogs could be found is a mystery.

A.D. 1389. "1 Henry IV. The land called the Becard, lying about Fairfield and between that and the Isle of Oxney and Appledore, was inclosed about this time, and is now known as the Becket Land.

A.D. 1447. "Sir John Elrington inclosed another large tract of land, thrusting the river Rother, as it was then called, from the Becard and the Appledore Channel, towards the Guildeford Level, Wainway Creek, and Rye Harbour. Sir John Guildeford was probably inning, or had inned, a portion of Guildeford Marsh at this time.

A.D. 1479. "18 Edward IV. Commission granted to Sir John Fogge, where the bounds of Walland Marsh, as now existing, are

stated. The whole of Walland Marsh was then inclosed, except the district now known as Wainway Watering, Wainway Creek, and other creeks leading in, as shown in M. Poker's or Cole's map of A.D. 1617. At this time (A.D. 1479) the land lying between Kent Pen and Jury's Gut Wall was open to the sea from Wainway Creek. Dugdale, in his map, marks Wainway as New Innings of Wainway, probably about A.D. 1600.

“From the accounts of the innings in Guildeford Marsh, in Holloway's ‘History of Romney Marsh,’ it appears that large grants of land to Sir John Guildeford were inned between 1478 and 1534. A.D. 1534.

“From the records of Walland Marsh, A.D. 1560, we collect that the sea still flowed up the Wainway Creek to Aghonie Marsh Walls, as a view was then ordered to be taken of the sea wall there, and certain repairs directed to be made. A.D. 1560.

“An inquisition taken at Rye before Edward Lord Clinton proves that Sir John Guildeford had then inned the land about Wainway Creek. A.D. 1562.

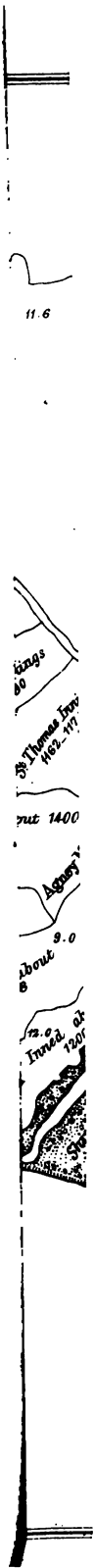
“Wainway Creek itself was shut in under a grant from Charles II., 1661; and thus the final stroke was given to the innings of the whole of Romney Marsh, including Walland Denge, and Guildeford Marshes, to the mouth of Rye Harbour. A.D. 1661.

“In the case of the owners of the upper levels (about Newenden and Bodiam), in a Bill depending in Parliament about the harbour of Rye, it is stated that the lands were sewed, and always had been sewed, into the Rother, which anciently passed into the sea through Romney Marsh, several miles distant from Rye, towards the north-east; but that, having lost its passage about the year 1610, it was turned into the channel of Appledore, *which channel had at that time* no communication with the ancient or present harbour of Rye, but passed into the sea through Guildeford Marsh, at the distance of two miles from Rye to the north-east, and in the year 1623 was turned over from the Guildeford side into a small channel on the Rye side; that the true and natural harbour of Rye, in the year 1644, and always before, lay on the south-west side of the town of Rye, towards Winchelsea. A.D. 1701.

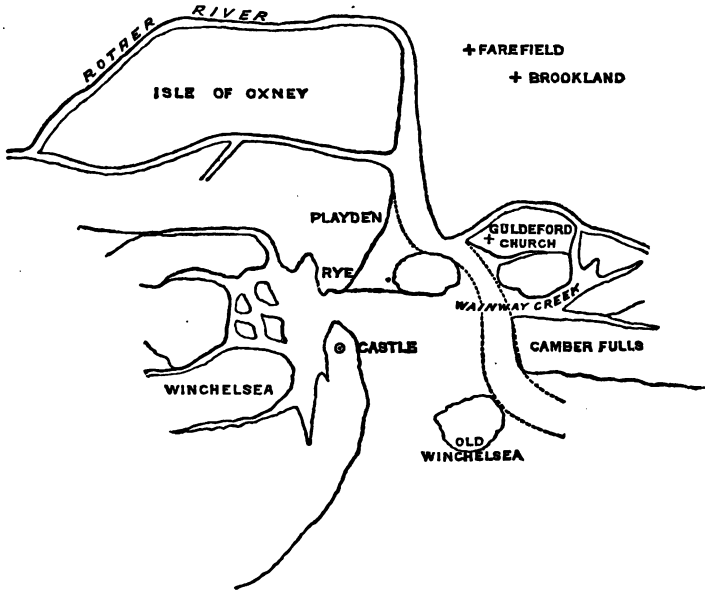
“This requires a little explanation. When the petitioners

speak of Romney Marsh, it must be taken in the general sense. The time when the waters of the Rother were turned into the Appledore Channel was at the inning of the Becard by Fairfield, in 1389. The innings of Sir John Elrington, 1447, would force the Rother still further westward by Appledore Channel. About the same time Sir J. Guildeford was inning land in the vicinity of Guildeford Church (1478 to 1534); this carried the Appledore Channel to Wainway Creek, so that the only course the Rother could have had from 1389 to 1534, and of course to 1610 (the date of this petition), must have been by the Appledore Channel into Wainway Creek. The outlet by the Appledore Channel and Wainway Creek was probably close to the north end of the sand hills at the Camber, between that and the present light-houses. This would be where it is shown in the map of Sussex, in Camden's 'Britannia,' if the channel between the land at Rye and Playden were closed, and there was no channel between Playden and Rye until 1787. 'In 1623 (the petitioners say) the channel of Appledore passed *into the sea* through Guildeford Marsh, two miles from Rye,' which would be the point at the sand hills before referred to, and would run thence by the Wainway Creek to Appledore Channel, a short distance west of Guildeford Church, a tract which the sea flowed over up to 1833.

"It is evident that very great changes must have occurred in the coast from Fairlight to Promhill. Norden, in his preface to the 'History of Cornwall,' says of Winchelsea, 'The ruins thereof now lie under the waves three miles within the high sea.' Tradition, he goes on to say, gave the same site in 1330. The bounds of Winchelsea, as stated by Cooper in his 'History of Winchelsea,' were on the Camber (Wainway Creek) side to 'a point on the coast where a man can see Beachey Head by Bourne, past Fairlight Head.' Allowing for waste of Fairlight Head, which would be considerable in 500 years, we should draw the line of ancient shingle spit, as shown in the map at p. liii., and this would also be the extent which Norden describes, when he says, 'the ruins thereof (that is, Old Winchelsea) now



lie under the waves three miles within the sea." It is highly probable that both Old Winchelsea and Promhill stood, as Lydd does, on an ancient shingle spit, and not higher above high-water mark than three to four feet, and that they



A PLAN OF RYE HARBOUR
(From Camden's Britannia).

The dotted lines show the course of the Rother at this time, there being no opening between Playden and Rye.

were destroyed by some great storms for want of the foreshore which protected Lydd and Romney, viz. Dungeness Point. The sea probably, at some early period of which we have no record, severed the spit somewhere between Old Winchelsea and Promhill. There cannot be much doubt that at one period this shingle spit formed a communication across the bay, part of the parish of Winchelsea being still on the east of Rye Bay, and extending to a point on the coast where a man can see Beachy Head. Holloway, in his 'History of Romney Marsh,' speaking of Camber Castle in 1540,

observes that the sea flowed very close to the walls of the castle, on the south, east, and north sides. In 1626, only eighty-six years after, it is stated in a commission granted to Lord Tufton and others, 2 Charles I., that the castle of Camber, in Sussex, was grown into great decay, being forsaken by the sea, and left distant from the water *two miles* at the least. (Cooper's 'History of Winchelsea.')

"On the old map of the Marsh in the Cottonian collection at the British Museum (see ante, p. 44), the coast line is shown as it then existed. There is no scale to this map, but on comparing fixed points with the Ordnance Survey I find the scale to be five furlongs to the inch. If so, it appears that the coast line has come inland about two furlongs, or eighty rods. The Ordnance Survey was executed 1817, and assuming that the old map in the British Museum was made about A. D. 1550, we have in 267 years a loss of eighty rods in the breadth of the shingle, or about thirty rods in a century. At this rate the shore, B. C. 55, would have been a mile and a half further seaward than at the present time. It is probable, however, that the alteration of this part of the coast was not so rapid before, as since the growth of Dungeness Point. It is pretty certain that the coast line has retreated inland ten rods in fifty years, which would give nine furlongs loss in 1800 years. But this probably is too much, as the line of coast to the westward would continue to feed Hythe with shingle for many years, after the great supply from Dungeness had been cut off. It is within the limit of probability that B. C. 55 the coast line at Hythe was nearly a mile wide from the hills.

"In the old map above referred to, the channels of the haven are represented as forming two small islands. The traces of them were not obliterated until about ten years since, when I was engaged in levelling the land at the south of Hythe. On that occasion, for the purpose of filling up the ditches, I removed and carted away two knolls or eminences which were no doubt anciently the two islands in question: The knolls were pretty close together, about halfway between the military canal and the shingle fall, and about thirty rods to

the east of the Elm Avenue leading from Hythe to the sea. The larger one was oval, thirty yards by twenty and about five feet above the general level. The smaller one was not more than half the size of the other, and a foot and a half lower, and lay to the north-west of the other. I had no conception at the time that I was annihilating two important ancient landmarks.

“I may add that in excavating for a drain at the east end of Hythe, we came to the foundations of a Roman building in the main road, about two feet under the surface, and turned up at the same time a great quantity of broken Roman pottery.”

Page 50.

Of the writers who allude to the Marshes, at the part where Cæsar landed, no one, perhaps, uses more pointed language than Lucan, in a passage which was accidentally omitted by the author :

“Oceanumque vocans incerti stagna profundi,
Territa quæsitis ostendit terga Britannis.”

LUCAN, *Phars.* lib. ii. v. 571.

Page 51.

It has since occurred to me that another argument, though slight, may be urged in favour of Deal, viz. that Cæsar, having come from Boulogne, and anchored off the cliffs between Sandgate and the South Foreland, “*went forward*,” ab eo loco *progressus* (iv. 23), which may be thought to mean, that he went up Channel towards Deal. But to this it may be answered, in the first place, that if Cæsar sailed from Boulogne he would approach Folkestone nearly at right angles to the shore, and that if he anchored half a mile or farther from the shore he would be said to go forward, whether he turned to the right hand or the left. In the next place, though the coast towards Dover might in reality be somewhat more remote than the coast in the opposite direction, yet, as a person approaches Britain from Boulogne, the line of shore towards Dover, from the greater height and whiteness of the cliffs, presents the appearance of being nearer

than the line of shore westward, where the cliffs trend inland and the low level of Romney Marsh succeeds. Again, the word "progressus" has reference to the object in view, viz. the island of Britain; and this, to a person arriving from Boulogne, would lie on the left and not on the right. When Cæsar, on his second expedition, was drifted through the strait, he no sooner discovered his error than he tacked back again, *i. e.* the Britain which he was seeking lay to the west.

Page 70.

It is here assumed that the two ships which missed the Portus Itius put into another *port* more to the south, but on referring again to the Commentaries, I am satisfied that Cæsar's meaning is, that the two ships, without reaching any port, put the soldiers on shore either by boats or by running the vessel aground. This also was the understanding of the late Mr. J. Dougall, whose observations are well worth transcribing: "When they arrived," he says, "under the lee shore at Grisnez, the fleet would keep as close as possible to the land. Two of the transports, however, the farthest off the shore, and probably in very bad condition, unable to stand in for the Liane with the others, were forced to run before the wind southward. The high rocky shore extends for above four miles south from the Liane to the commencement of the sandy downs, which reach for nine miles more to the river Canche. On any part of that sandy beach the two transports, flat-bottomed, and in smooth water, with the wind obliquely from the land, might easily run aground and set the troops on shore. . . . While the troops were busied in landing within the haven of the Liane, the fate of the two transports could not be discovered, and might not attract immediate attention; nor could Cæsar's cavalry proceed to their assistance without going up some miles above the haven to find a ford near the Liane."

Page 79.

Corus is generally considered as identical with Caurus, but Vitruvius distinguishes them, and dividing the compass into

twenty-four (not, as we do, into thirty-two) points, makes Caurus the N.W. and Septentrio the N., and between them places Corus next Caurus, and Thrascias next Septentrio. Corus, therefore, would be nearly N.N.W. “Ad latera Cauri Circius et Corus: circa Septentrionem Thrascias et Gallicus.” — *Vitruv.* lib. i. c. 6.

Page 86.

I assumed in my essay that the camp which Cæsar pitched, immediately on his second landing, was the camp, but with increased dimensions, in which, on returning from Wye, he drew up his fleet. But, on further reflection, I doubt whether there were not two successive and distinct camps. On his second landing he selected a *suivable* spot, “*loco castris idoneo capto*” (v. 7); and the word “*idoneo*” leads to the inference that the camp was as usual on high, and naturally strong ground; and if so, what is called Cæsar’s camp, at the edge of Shorncliffe, and overlooking the Marsh at Hythe, if ancient, would exactly answer the description. The language, as to the subduction of the ships, is that he decided “*omnes naves subduci, et cum castris unâ munitione conjungi*” (v. 11); not that they should be hauled into *the camp* before chosen, but that both ships and men should be collected into *one camp*, and protected by the same ramparts. This united camp he calls, by way of contra-distinction, the “*castra navalia*” (v. 22); and, from the nature of the case, it must have stood on the sea shore. As for many centuries the action of the sea has been wasting this part of the coast, the site of the camp, if originally at the seaside, must long since have disappeared.

Page 94.

I have since examined more closely the mounds in the Marsh near to, and just opposite, Stuttfall, and I find that they are not artificial, but banks of sand; and, in the opinion of Mr. Elliott, were not thrown up by the sea, but drifted

thither by the wind. They lie north and south, increasing in height towards the south, and reach, say sixty yards. They are quite isolated, and not connected with the Shingle Falls, but rest on the ordinary mould of the Marsh.

THE END.

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